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## INTRODUCTION

**ASI** was established in 1979 to serve the semiconductor needs of the North American OEM community. In the ensuing two decades ASI has grown to a position of leadership serving commercial and military markets throughout the world.

**ASI** has built its reputation by providing superior quality semiconductors, responsive service and on time product delivery.

**ASI** offers a wide range of standard silicon based semiconductors. The transistor product line includes small signal and power types featuring bipolar and FET devices. The diode product line encompasses power rectifiers, thyristors and microwave diodes. Whether your design requires a standard or custom transistor, ASI has the right solution.

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## CATALOG

This is the first ASI short form catalog featuring RF power transistors. It includes all standard silicon bipolar and MOSFET power transistors.

This catalog is arranged by major product line and within each product line it is arranged by frequency and application. An alphanumeric part number index is located in the front of the catalog. A comprehensive industry cross-reference is located at the end of the product section. As with any cross-reference recommendation the transistor should be evaluated in the specific circuit used to determine compatibility.

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## MISSION STATEMENT

*ASI's mission is to provide products that meet specification, exceed customer expectations and that are continuously being improved.*

Fred Golob  
President  
**Advanced Semiconductor, Inc.**

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## GENERAL INFORMATION

### HOW TO ORDER:

Orders may be placed directly with our sales department or through our authorized sales representatives. Telephone orders are considered to be advance verbal instructions and written confirmation, sent by mail or fax is required. The minimum order is \$250.00 per order.

### TERMS AND CONDITIONS:

Prices are quoted (F.O.B.) factory and are valid for thirty (30) days from the date of the quotation unless otherwise specified.

Payment terms are 2% ten days, net thirty from date of invoice if credit has been approved. Complete terms and conditions of sale appear on ASI packing lists.

### WARRANTY:

ASI warrants each transistor to meet all published specifications and to be free from defects in material and workmanship. The company's liability under this warranty is limited to repair, adjustment and/or replacement of defective parts returned, freight paid by Buyer, to the factory within one year from date of shipment. Damage by misuse or abnormal conditions of operation void this warranty.

### RETURNED MATERIAL:

Returned product will not be accepted without first obtaining a Returned Material Authorization (RMA) from the factory.

We require that complete information be included with returns, including a detailed description of the reason for the return, along with the date and purchase order on which the material was obtained.

### SALES & ENGINEERING SUPPORT:

Many of the products manufactured and distributed by ASI are described in more detail on individual data sheets. Datasheets are available on our website at:

[www.advancedsemiconductor.com](http://www.advancedsemiconductor.com)

ASI maintains a staff of sales and engineering professionals to assist with information on the capabilities, characteristics, and application of the transistors listed within this catalog. For application assistance and/or additional information you may reach us at:

[sales@advancedsemiconductor.com](mailto:sales@advancedsemiconductor.com)

### DISCLAIMER:

ASI reserves the right to change specifications, models, prices or designs without prior notice and without liability for such changes.

ASI products are not designed, intended or authorized for use in systems intended for surgical implant, life support, life sustaining or any application in which a failure of the ASI product could create a situation where personal injury or death may occur.

### FSCM/EIA CODE:

ASI has been assigned FSCM No. **4U751** by the U.S. Government. The EIA code for ASI is **66**.

### CORRESPONDENCE:

Our address for all customer correspondence is:

**Advanced Semiconductor, Inc.**

7525 Ethel Ave.

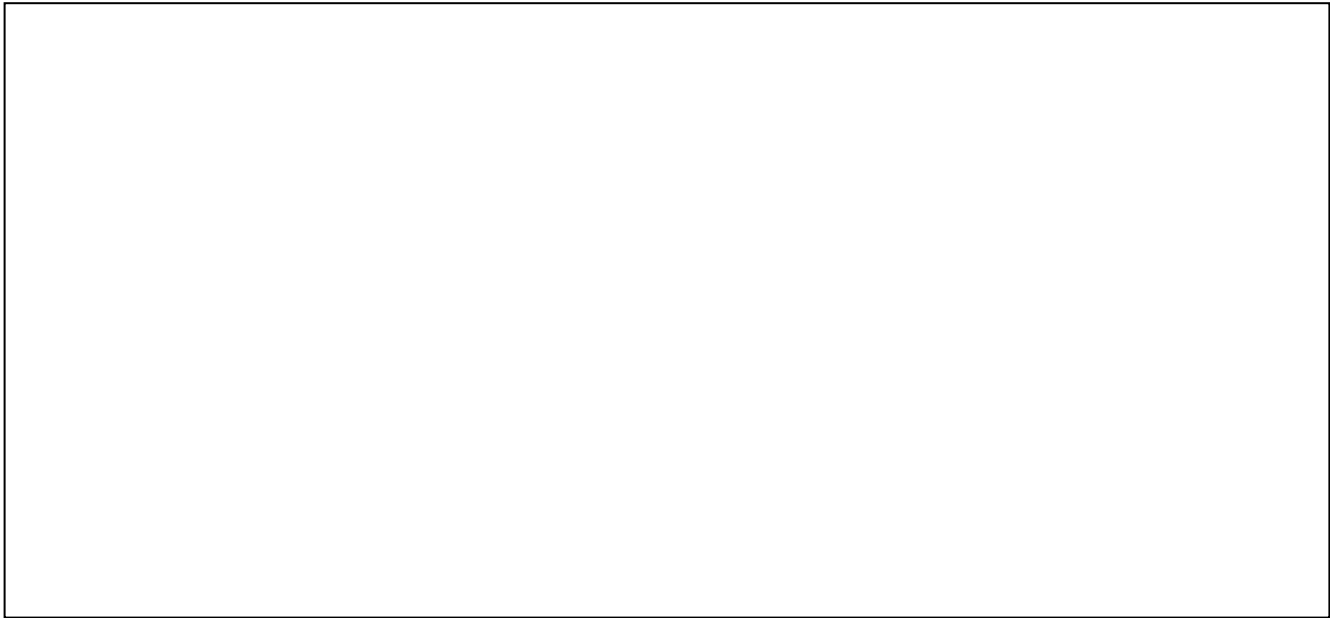
N. Hollywood, California 91605-1912

Telephone: **(818) 982-1200**

**(800) 423-2354** (outside CA)

FAX: **(818) 765-3004**

## QUALITY ASSURANCE & RELIABILITY



**ASI** is committed to achieving excellence in customer service and product quality. The current quality system is in accordance with MIL-I-45208 and incorporates elements of MIL-Q-9858A. A program to implement ISO9000 is under way. Test equipment is calibrated in accordance with MIL-C-45662.

**ASI** RF/Microwave power transistors incorporate the **Omnigold™** Metalization system insuring maximum reliability. All power products utilize eutectic die bonding for superior die attach integrity, ruggedness and thermal resistance performance.

**ASI** offers three (3) reliability grades including an equivalent to JANTX. **ASI** utilizes procedures based on MIL-S-19500 and MIL-STD-750 for device pre-conditioning, screening and qualification testing. Summaries of the three reliability grades are detailed in the chart below.

EXAMINATION / TEST	MIL-STD-750 METHOD	ASI Standard Grade	ASI MIL Grade	JANTX Equivalent Screening
Internal Visual	2071	---	0.65 % AQL	0.65 % AQL
High Temp. Stabilization Bake	1032	100%	100 %	100 %
Temp. Cycling	1051	---	100%	100 %
Constant Acceleration	2006	---	---	100 %
PIND	2052	---	---	100 %
Hermeticity – Fine Leak	1071	---	100 %	100 %
Hermeticity – Gross Leak	1071	0.65 % AQL	100 %	100 %
High Temp. Reverse Bias	1039	---	---	100 %
Forward Bias Burn-In	1039	---	100 %	100 %
Group A Testing	Per SCD	---	---	100 %
External Visual	7071	0.65 % AQL	0.65 % AQL	100 %

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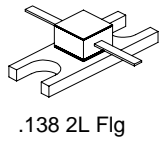
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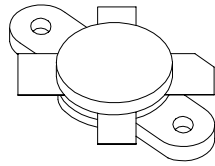
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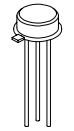
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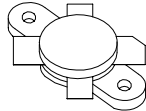
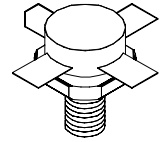
.138 2L Flg



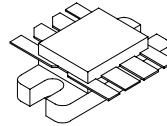
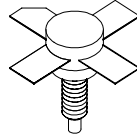
.550 4L Flg



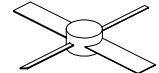
TO-46



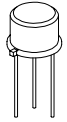
.380 4L Flg



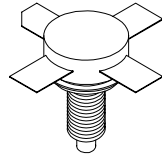
.400 8L Flg



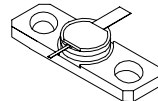
.205 4L Pill



TO-39



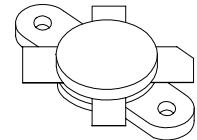
.500 4L Stud



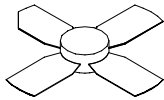
.250 2L Flg



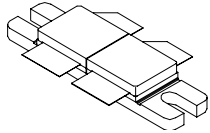
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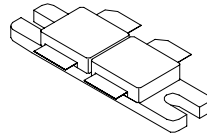
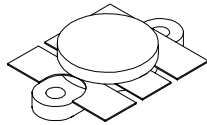
.500 4L Flg



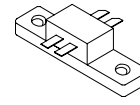
.280 4L Pill



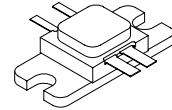
.500 6L Flg



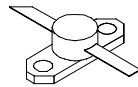
.450 4L Flg (B)



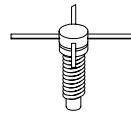
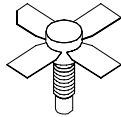
.250 Bal Flg



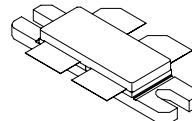
.400 Bal Flg (A)



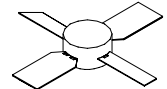
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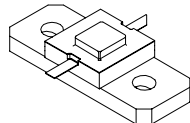
.205 4L Stud



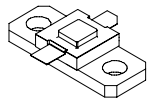
.400 Bal Flg (C)



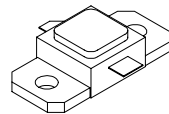
.280 4L Pill (A)



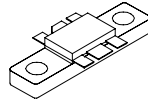
.400 2NL Flg



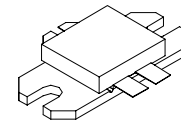
.310 2L Flg



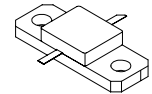
.400 2L Flg



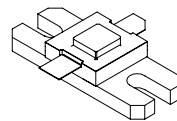
.230 6L Flg



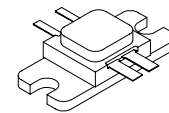
.450 Bal Flg (A)



.250 2L Flg (A)

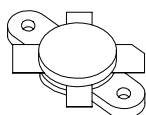


.400 2L Flg (A)

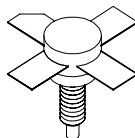


.400 Bal Flg (A)

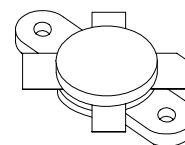
ASI HF transistors are characterized for broadband amplifier operation, 2-30MHz devices provide high linear power output for a variety of military, commercial and amateur communication equipment.



.380 4L Flg



.380 4L Stud



.500 4L Flg

### 12.5 Volt, Class AB Linear

PART NUMBER	FREQ. MHz	P <sub>OUT</sub> Min. Watts (pep)	P <sub>G</sub> Min. dB	BIAS		IMD <sub>3</sub> dBc	θ <sub>JC</sub> Max. °C/W	PACKAGE STYLE
				V <sub>CE</sub> Volts	I <sub>CQ</sub> mA			
HF5-12F	30	5.0	20.0	12.5	15	-30	13.5	.380 4L Flg
HF5-12S	30	5.0	20.0	12.5	15	-30	13.5	.380 4L Stud
HF10-12F	30	10	20.0	12.5	20	-30	4.4	.380 4L Flg
HF10-12S	30	10	20.0	12.5	20	-30	4.4	.380 4L Stud
HF20-12F	30	20	18.0	12.5	25	-30	2.2	.380 4L Flg
HF20-12S	30	20	18.0	12.5	25	-30	2.2	.380 4L Stud
HF50-12F	30	50	16.0	12.5	75	-30	1.05	.380 4L Flg
HF50-12S	30	50	16.0	12.5	75	-30	1.05	.380 4L Stud
HF75-12	30	75	13.0	12.5	100	-30	0.65	.500 4L Flg
HF100-12	30	100	12.0	12.5	100	-30	0.6	.500 4L Flg

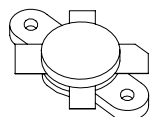
All transistors are configured common emitter.

### 28 Volt, Class AB Linear

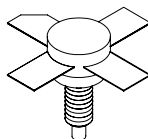
PART NUMBER	FREQ. MHz	P <sub>OUT</sub> Min. Watts (pep)	P <sub>G</sub> Min. dB	BIAS		IMB <sub>3</sub> dBc	θ <sub>JC</sub> Max. °C/W	PACKAGE STYLE
				V <sub>CE</sub> Volts	I <sub>CQ</sub> mA			
HF8-28F	30	8.0	21.0	28.0	10	-30	13.5	.380 4L Flg
HF8-28S	30	8.0	21.0	28.0	10	-30	13.5	.380 4L Stud
HF15-28F	30	15	21.0	28.0	20	-30	4.4	.380 4L Flg
HF15-28S	30	15	21.0	28.0	20	-30	4.4	.380 4L Stud
HF30-28F	30	30	20.0	28.0	25	-30	2.2	.380 4L Flg
HF30-28S	30	30	20.0	28.0	25	-30	2.2	.380 4L Stud
HF75-28F	30	75	18.0	28.0	75	-30	1.05	.380 4L Flg
HF75-28S	30	75	18.0	28.0	75	-30	1.05	.380 4L Stud
HF100-28	30	100	15.0	28.0	100	-30	0.65	.500 4L Flg
HF220-28	30	220	12.0	28.0	100	-30	0.55	.500 4L Flg

All transistors are configured common emitter.

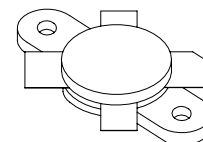
All transistors are configured common emitter.



.380 4L Flg



.380 4L Stud



.500 4L Flg

### 50 Volt, Class AB Linear

PART NUMBER	FREQ. MHz	P <sub>OUT</sub> Min. Watts (pep)	P <sub>G</sub> Min. dB	BIAS		IMD <sub>3</sub> dBc	θ <sub>JC</sub> Max. °C/W	PACKAGE STYLE
				V <sub>CE</sub> Volts	I <sub>CQ</sub> mA			
HF75-50F	30	75	14	-30	50.0	50	2.0	.500 4L Flg
HF75-50S	30	75	14	-30	50.0	50	2.0	.380 4L Stud
HF150-50F	30	150	14	-30	50.0	100	0.75	.500 4L Flg
HF150-50S	30	150	14	-30	50.0	100	0.75	.500 4L Stud (A)
HF220-50	30	220	13	-30	50.0	150	0.55	.500 4L Flg
HF250-50	30	220	14	-30	50.0	150	0.40	.550 4L Flg

All transistors are configured common emitter.

### Class AB Linear, MOSFET

PART NUMBER	FREQ. MHz	P <sub>OUT</sub> Min. Watts (pep)	P <sub>G</sub> Min. dB	BIAS		IMD <sub>3</sub> dBc	θ <sub>JC</sub> Max. °C/W	PACKAGE STYLE
				V <sub>DS</sub> Volts	I <sub>DQ</sub> mA			
HFT150-28	30	150	16	28	250	-28	0.60	.500 4L Flg
HFT150-50	30	150	16	50	250	-32	0.60	.500 4L Flg

All transistors are configured common source.

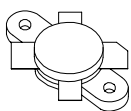
### NOTE

All **HF** series bipolar transistors are available as h<sub>FE</sub> matched pairs or matched quads by adding MP or MQ suffix to part number.

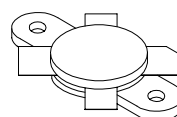
#### Example

HF150-50F**MP** = matched pair of HF150-50F

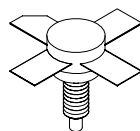
HF150-50F**MQ** = matched quad of HF150-50F



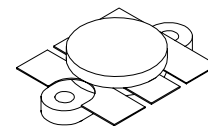
.380 4L Flg



.500 4L Flg



.380 4L Stud



.500 6L Flg

### 12.5 Volt, Low-Band

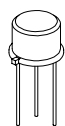
PART NUMBER	FREQ. Nom. MHz	P <sub>OUT</sub> Min. Watts	P <sub>G</sub> Min. dB	V <sub>CC</sub> Volts	η <sub>C</sub> Typ. %	C <sub>OB</sub> Max. pF	θ <sub>JC</sub> Max. °C/W	PACKAGE STYLE
VLB10-12F	50	10	16.0	12.5	60	65	5.0	.380 4L Flg
VLB10-12S	50	10	16.0	12.5	60	65	5.0	.380 4L Stud
VLB40-12F	50	40	13.0	12.5	60	100	2.5	.380 4L Flg
VLB40-12S	50	40	13.0	12.5	60	100	2.5	.380 4L Stud
VLB70-12F	50	70	10.0	12.5	60	270	1.05	.380 4L Flg
VLB70-12S	50	70	10.0	12.5	60	270	1.05	.380 4L Stud
VLB100-12	50	100	7.0	12.5	60	400	0.65	.500 4L Flg

All transistors are configured common emitter and are operated Class C.

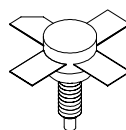
### 12.5 & 28 Volt, Mid-Band

PART NUMBER	FREQ. Nom. MHz	P <sub>OUT</sub> Min. Watts	P <sub>G</sub> Min. dB	V <sub>CC</sub> Volts	η <sub>C</sub> Typ. %	C <sub>OB</sub> Max. pF	θ <sub>JC</sub> Max. °C/W	PACKAGE STYLE
VMB10-12F	88	10	13.0	12.5	60	65	5.0	.380 4L Flg
VMB10-12S	88	10	13.0	12.5	60	65	5.0	.380 4L Stud
VMB40-12F	88	40	10.0	12.5	60	165	2.5	.380 4L Flg
VMB40-12S	88	40	10.0	12.5	60	165	2.5	.380 4L Stud
VMB70-12F	88	70	7.0	12.5	60	270	1.05	.380 4L Flg
VMB70-12S	88	70	7.0	12.5	60	270	1.05	.380 4L Stud
VMB100-12	88	100	10.0	12.5	60	400	0.65	.500 6L Flg
VMB80-28F	88	80	10.0	28.0	60	200	1.05	.380 4L Flg
VMB80-28S	88	80	10.0	28.0	60	200	1.05	.380 4L Stud
VMB150-28	88	150	13.0	28.0	60	335	0.65	.500 6L Flg

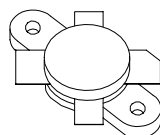
All transistors are configured common emitter and are operated Class C.



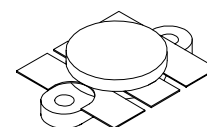
TO-39



.380 4L Stud



.380 4L Flg



.500 6L Flg

### 12.5 Volt, High-Band

PART NUMBER	FREQ. Nom. MHz	P <sub>OUT</sub> Min. Watts	P <sub>G</sub> Min. dB	V <sub>CC</sub> Volts	η <sub>C</sub> Typ. %	C <sub>OB</sub> Max. pF	θ <sub>JC</sub> Max. °C/W	PACKAGE STYLE
VHB1-12T	175	1.0	10	12.5	60	4	20	TO-39
VHB10-12F	175	10	10	12.5	60	45	8.8	.380 4L Flg
VHB10-12S	175	10	10	12.5	60	45	8.8	.380 4L Stud
VHB25-12F	175	25	10	12.5	60	110	3.5	.380 4L Flg
VHB25-12S	175	25	10	12.5	60	110	3.5	.380 4L Stud
VHB40-12F	175	40	8.5	12.5	60	135	2.9	.380 4L Flg
VHB40-12S	175	40	8.5	12.5	60	135	2.9	.380 4L Stud
VHB80-12*	175	80	7	12.5	60	380	0.75	.500 6L Flg
VHB100-12*	175	100	6	12.5	60	420	0.65	.500 6L Flg

All transistors are configured common emitter and are operated Class C.

\*Features internal input matching network

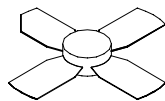
### 28 Volt, High-Band

PART NUMBER	FREQ. Nom. MHz	P <sub>OUT</sub> Min. Watts	P <sub>G</sub> Min. dB	V <sub>CC</sub> Volts	η <sub>C</sub> Typ. %	C <sub>OB</sub> Max. pF	θ <sub>JC</sub> Max. °C/W	PACKAGE STYLE
VHB1-28T	175	1.0	13	28.0	60	3	35	TO-39
VHB10-28F	175	10	10	28.0	60	15	5.5	.380 4L Flg
VHB10-28S	175	10	10	28.0	60	15	5.5	.380 4L Stud
VHB25-28F	175	25	8.5	28.0	60	50	4.4	.380 4L Flg
VHB25-28S	175	25	8.5	28.0	60	50	4.4	.380 4L Stud
VHB40-28F	175	40	7.5	28.0	60	65	2.9	.380 4L Flg
VHB40-28S	175	40	7.5	28.0	60	65	2.9	.380 4L Stud
VHB50-28F	175	50	6	28.0	60	80	2.3	.380 4L Flg
VHB50-28S	175	50	6	28.0	60	80	2.3	.380 4L Stud
VHB125-28*	175	125	9	28.0	60	250	0.65	.500 6L Flg

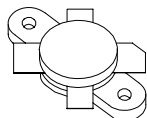
All transistors are configured common emitter and are operated Class C.

\*Features internal input matching network.

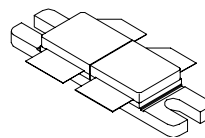
Our MOSFETs are designed for high power linear amplifier applications at frequencies up to 400 MHz.



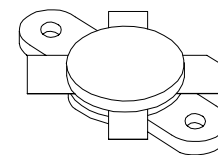
.280 4L Pill



.380 4L Flg



.400 Bal Flg



.500 4L Flg

**175 MHz, VHF**

PART NUMBER	FREQ. Nom. MHz	P <sub>OUT</sub> Min. Watts	P <sub>G</sub> Min. dB	BIAS		$\eta_D$ Typ. %	$\theta_{JC}$ Max. °C/W	PACKAGE STYLE
				V <sub>DS</sub> Volts	I <sub>DQ</sub> mA			
VFT5-28SL	175	5.0	20	28.0	50	55	10	.280 4L Pill
VFT5-28	175	5.0	13	28.0	50	55	10	.380 4L Flg
VFT15-28	175	15	13	28.0	25	60	3.2	.380 4L Flg
VFT30-28	175	30	13	28.0	25	60	1.8	.380 4L Flg
VFT45-28	175	45	12	28.0	25	60	1.75	.380 4L Flg
VFT80-28	175	80	10	28.0	25	60	1.5	.380 4L Flg
VFT150-28	175	150	10	28.0	250	60	0.6	.500 4L Flg
VFT300-28	175	300	12	28.0	500	55	0.35	.400 Bal Flg (D)
VFT30-50	175	30	15	50.0	100	60	1.52	.380 4L Flg
VFT150-50	175	150	13	50.0	250	55	0.6	.500 4L Flg
VFT300-50	175	300	14	50.0	500	65	0.35	.400 Bal Flg (D)

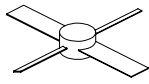
All transistors are configured common source and biased Class AB.

**225 - 400 MHz, UHF**

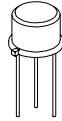
PART NUMBER	FREQ. Nom. MHz	P <sub>OUT</sub> Min. Watts	P <sub>G</sub> Min. dB	BIAS		$\eta_D$ Typ. %	$\theta_{JC}$ Max. °C/W	PACKAGE STYLE
				V <sub>DS</sub> Volts	I <sub>DQ</sub> mA			
UFT5-28SL	400	4.0	14	28.0	50	55	10	.280 4L Pill
UFT5-28	400	4.0	9	28.0	50	55	10	.380 4L Flg
UFT15-28	400	12	8	28.0	25	60	3.2	.380 4L Flg
UFT30-28	400	25	7	28.0	25	60	1.8	.380 4L Flg
UFT150-28	400	150	10	28.0	2 x 100	55	0.6	.400 Bal Flg (D)

All transistors are configured common source and biased Class AB.

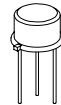
A broad range of 12.5 and 24volt, Class C power devices are offered for FM Land Mobile and FM Base Station applications.



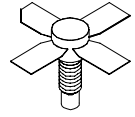
.205 4L Pill



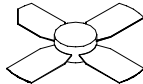
TO-39



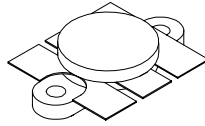
TO-39GE



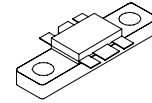
.280 4L Stud



.280 4L Pill



.500 6L Flg



.230 6L Flg

### FM Land Mobile

PART NUMBER	FREQ. Nom. MHz	P <sub>OUT</sub> Min. Watts	P <sub>G</sub> Min. dB	V <sub>CC</sub> Volts	η <sub>C</sub> Typ. %	C <sub>OB</sub> Max. pF	θ <sub>JC</sub> Max. °C/W	PACKAGE STYLE
ULBM05	470	0.5	13.0	12.5	60	4	70.0	.205 4L Pill
ULBM2T	470	2.0	6.0	12.5	55	10	35.0	TO-39
ULBM2TE	470	2.0	8.0	12.5	55	10	35.0	TO-39GE
ULBM2	470	2.0	10.0	12.5	60	10	35.0	.280 4L Stud
ULBM2SL	470	2.0	10.0	12.5	60	10	35.0	.280 4L Pill
ULBM5	470	5.0	8.5	12.5	60	22	12.0	.280 4L Stud
ULBM5SL	470	5.0	8.5	12.5	60	22	12.0	.280 4L Pill
ULBM10	470	10	7.0	12.5	60	25	7.0	.280 4L Stud
ULBM15*	470	15	7.5	12.5	60	50	5.0	.500 6L Flg
ULBM25*	470	25	6.5	12.5	60	80	2.5	.500 6L Flg
ULBM35*	470	35	6.0	12.5	60	110	1.5	.500 6L Flg
ULBM45*	470	45	5.0	12.5	60	150	1.0	.500 6L Flg
UHBM45* <sup>1</sup>	836	45	4.7	12.5	35	90	1.2	.230 6L Flg

Unless specified, all transistors are configured common emitter and operated Class C.

\* Features internal input matching network.

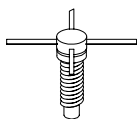
<sup>1</sup> Configured common base.

### FM Base Station

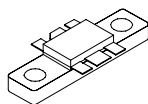
PART NUMBER	FREQ. Nom. MHz	P <sub>OUT</sub> Min. Watts	P <sub>G</sub> Min. dB	V <sub>CC</sub> Volts	η <sub>C</sub> Typ. %	C <sub>OB</sub> Max. pF	θ <sub>JC</sub> Max. °C/W	PACKAGE STYLE
UHBS15-1	900	15	9.5	24.0	55	25	3.0	.230 6L Flg
UHBS15-2	960	15	9.0	24.0	50	25	3.0	.230 6L Flg
UHBS30-1	900	30	7.5	24.0	55	50	1.5	.230 6L Flg
UHBS30-2	960	30	7.0	24.0	50	50	1.5	.230 6L Flg
UHBS60-1	900	60	7.5	24.0	55	75	0.9	.230 6L Flg
UHBS60-2	960	60	7.0	24.0	50	75	0.9	.230 6L Flg

All transistors are configured common base, feature internal input matching network and are operated Class C.

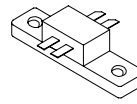
ASI offers broadband transistors that are characterized for UHF military communications and other wideband applications.



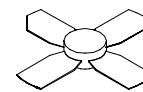
.205 4L Stud



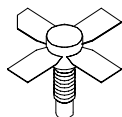
.230 6L Flg



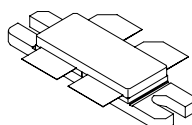
.250 Bal Flg



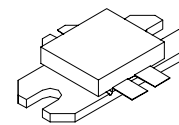
.280 4L Pill



.280 4L Stud



.400 Bal Flg (C)



.450 Bal Flg (A)

### Cellular Base Station

PART NUMBER	FREQ. Nom. MHz	P <sub>OUT</sub> Min. Watts	P <sub>G</sub> Min. dB	BIAS		C <sub>OB</sub> Max. pF	θ <sub>JC</sub> Max. °C/W	PACKAGE STYLE
				V <sub>CC</sub> Volts	I <sub>CQ</sub> mA			
CBSL1 <sup>1</sup>	960	1.0	10.0	24.0	125	5	25.0	.280 4L Stud
CBSL1SL <sup>1</sup>	960	1.0	10.0	24.0	125	5	25.0	.280 4L Pill
CBSL2 <sup>1</sup>	960	2.0	9.0	24.0	200	5	20.0	.280 4L Stud
CBSL2SS <sup>2</sup>	960	2.0	9.0	24.0	na	3.5	25.0	.205 4L Stud
CBSL6*	960	6.0	10.0	24.0	25	8.5	3.3	.230 6L Flg
CBSL15*	960	15	8.0	24.0	75	25	6.0	.230 6L Flg
CBSL30*	960	30	7.5	24.0	150	50	3.0	.230 6L Flg
CBSL30B*	960	30	7.5	24.0	2 x 75	25	3.0	.250 Bal Flg
CBSL60B**	960	60	8.5	26.0	2 x 200	–	1.2	.450 Bal Flg (A)
CBSL100**	960	100	9.0	26.0	2 x 100	–	0.6	.400 Bal Flg (C)
CBSL150**	960	150	8.0	26.0	2 x 150	–	0.6	.400 Bal Flg (C)

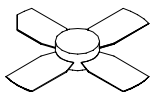
Unless specified all transistors are configured common emitter and bias Class AB.

<sup>1</sup> Specified for Class A operation.

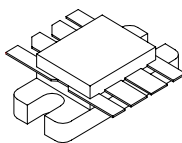
<sup>2</sup> Specified for Class C operation.

\* Features internal input matching network.

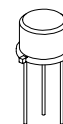
\*\* Features internal input and output matching networks.



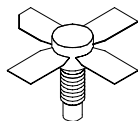
.280 4L Pill



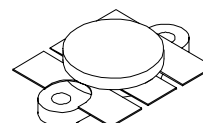
.400 8L Flg



TO-39



.280 4L Stud



.500 6L Flg

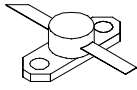
### Military Communications

PART NUMBER	FREQ. Nom. MHz	P <sub>OUT</sub> Min. Watts	P <sub>E</sub> Min. dB	V <sub>CC</sub> Volts	η <sub>c</sub> Typ. %	C <sub>OB</sub> Max. pF	θ <sub>JC</sub> Max. °C/W	PACKAGE STYLE
UML1	400	1.0	13.0	28.0	60	5	20.0	.280 4L Stud
UML1SL	400	1.0	13.0	28.0	60	5	20.0	.280 4L Pill
UML1T	400	1.0	10.0	28.0	55	5	35.0	TO-39
UML3	400	3.0	12.0	28.0	60	6	16.0	.280 4L Stud
UML5	400	5.0	10.0	28.0	60	10	11.0	.280 4L Stud
UML10	400	10	10.0	28.0	60	15	8.0	.280 4L Stud
UML15	400	15	10.0	28.0	60	20	5.5	.280 4L Stud
UML25S	400	25	9.0	28.0	60	30	3.0	.280 4L Stud
UML25F*	400	25	9.0	28.0	60	30	2.5	.500 6L Flg
UML70*	400	70	8.5	28.0	60	80	1.25	.500 6L Flg
UML100*	400	100	7.0	28.0	60	115	0.7	.500 6L Flg
UML125B*	400 500	125 100	7.0 5.5	28.0 28.0	60 55	115	0.65	.400 8L Flg

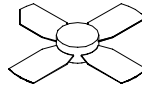
All transistors are configured common emitter and are operated Class C.

\* Features internal input matching network.

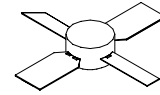
At ASI, we offer a broad variety of products specifically characterized for Avionics applications.



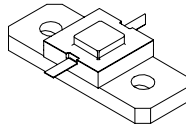
.250 2L Flg (B)



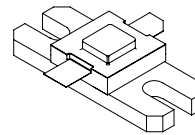
.280 4L Pill



.280 4L Pill (A)



.400 2NL Flg



.400 2L Flg (A)

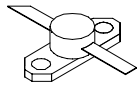
### 1025 – 1150 MHz, DME/TACAN Applications

PART NUMBER	P <sub>OUT</sub> Min. Watts	P <sub>G</sub> Min. dB	Pulse Width $\mu$ S	Duty Cycle %	V <sub>CC</sub> Volts	$\eta_c$ Min. %	$\theta_{JC}$ Max. °C/W	PACKAGE STYLE
AVD0.5P <sup>1</sup>	0.5	10.0	CW	CW	12.5	NA	35.0	.280 4L Pill
AVD002F	2.0	9.0	10	1	35.0	35	10.0	.250 2L Flg (B)
AVD002P	2.0	9.0	10	1	35.0	35	10.0	.280 4L Pill (A)
AVD004F	4.0	9.0	10	1	28.0	35	5.0	.250 2L Flg (B)
AVD004P	4.0	9.0	10	1	28.0	35	5.0	.280 4L Pill (A)
AVD015F	15	10.0	10	1	50.0	35	2.0	.250 2L Flg (B)
AVD015P	15	10.0	10	1	50.0	35	2.0	.280 4L Pill (A)
AVD035F	35	10.0	10	1	50.0	35	1.0	.250 2L Flg (B)
AVD035P	35	10.0	10	1	50.0	35	1.0	.280 4L Pill (A)
AVD075F	75	7.5	10	1	50.0	35	0.7	.250 2L Flg (B)
AVD075P	75	7.5	10	1	50.0	35	0.7	.280 4L Pill (A)
AVD090F	90	8.5	10	1	50.0	35	0.6	.250 2L Flg (B)
AVD090P	90	8.5	10	1	50.0	35	0.6	.280 4L Pill (A)
AVD150*	150	7.7	10	1	50.0	40	0.3	.400 2NL Flg
AVD250*	250	6.2	10	1	50.0	40	0.2	.400 2NL Flg
AVD350*	350	6.7	10	1	50.0	40	0.17	.400 2NL Flg
AVD400*	400	6.5	10	1	50.0	40	0.12	.400 2L Flg (A)
AVD550*	550	5.6	10	1	50.0	40	0.06	.400 2L Flg (A)

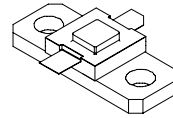
All transistors are configured common base unless specified; feature internal input matching network and operate Class C.

<sup>1</sup> Configured common emitter without internal matching network and biased Class A.

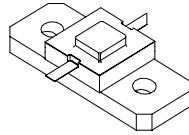
\* Features internal input and output matching networks.



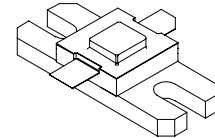
.250 2L Flg (B)



.310 2L Flg



.400 2NL Flg



.400 2L Flg (A)

**1030 – 1090 MHz, IFF Applications**

PART NUMBER	P <sub>OUT</sub> Min. Watts	P <sub>G</sub> Min. dB	Pulse Width μS	Duty Cycle %	V <sub>CC</sub> Volts	η <sub>C</sub> Min. %	θ <sub>JC</sub> Max. °C/W	PACKAGE STYLE
AVF100	100	10.0	10	1	40.0	35	35.0	.250 2L Flg (B)
AVF150	150	8.5	10	1	43.0	40	0.6	.250 2L Flg (B)
AVF250	250	8.5	10	1	50.0	35	0.6	.400 2NL Flg
AVF300	300	7.7	10	1	50.0	40	0.3	.400 2NL Flg
AVF350	350	6.2	10	1	50.0	40	0.2	.400 2NL Flg
AVF400	400	6.7	10	1	50.0	35	0.17	.400 2NL Flg
AVF450	450	6.5	10	1	50.0	40	0.12	.400 2L Flg (A)
AVF600	600	5.6	10	1	50.0	35	0.06	.400 2L Flg (A)

All transistors are configured common base; feature internal input/output matching networks and operate Class C.

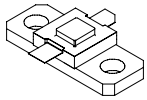
**960 – 1215 MHz, JTIDS Applications**

PART NUMBER	P <sub>OUT</sub> Min. Watts	P <sub>G</sub> Min. dB	Pulse Width μS	Duty Cycle %	V <sub>CC</sub> Volts	η <sub>C</sub> Min. %	θ <sub>JC</sub> Max. °C/W	PACKAGE STYLE
AJT006	6.0	9.3	JTIDS FORMAT		45.0	40	7.0	.310 2L Flg
AJT015	15	8.1	JTIDS FORMAT		45.0	40	3.0	.310 2L Flg
AJT030	30	7.8	JTIDS FORMAT		50.0	40	2.2	.400 2L Flg
AJT085	85	7.5	JTIDS FORMAT		50.0	40	0.75	.400 2NL Flg
AJT150	150	7.5	JTIDS FORMAT		50.0	40	0.57	.400 2L Flg (A)

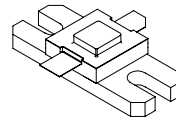
All transistors are configured common base; feature internal input/output matching networks and operate Class C.

**PULSED RADAR**

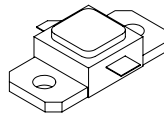
At ASI, we offer a complete line of short, medium and long pulse transistors for civil and military radar applications.



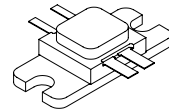
.310 2L Flg



.400 2L Flg (A)



.400 2L Flg



.400 Bal Flg (A)

**400 – 500 MHz, UHF Radar**

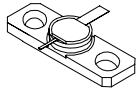
PART NUMBER	P <sub>OUT</sub> Min. Watts	P <sub>G</sub> Min. dB	Pulse Width $\mu$ S	Duty Cycle %	V <sub>CC</sub> Volts	$\eta_c$ Min. %	$\theta_{JC}$ Max. °C/W	PACKAGE STYLE
AUR300	300	9.5	250	10	40.0	55	0.20	.400 Bal Flg (A)
AUR500	500	9.5	250	10	40.0	50	0.15	.400 Bal Flg (A)

All transistors are configured common base; feature internal input matching networks and operate Class C.

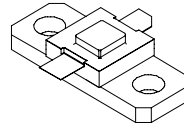
**1200 – 1400 MHz, L-Band**

PART NUMBER	P <sub>OUT</sub> Min. Watts	P <sub>G</sub> Min. dB	Pulse Width $\mu$ S	Duty Cycle %	V <sub>CC</sub> Volts	$\eta_c$ Min. %	$\theta_{JC}$ Max. °C/W	PACKAGE STYLE
ALR006	6.0	9.5	1000	10	28	47	9.0	.310 2L Flg
ALR015	15	8.5	1000	10	28.0	48	4.0	.310 2L Flg
ALR030	30	7.0	1000	10	28.0	45	2.4	.310 2L Flg
ALR060	60	6.5	1000	10	28.0	50	1.4	.310 2L Flg
ALR100	100	6.0	100	10	28.0	50	0.55	.400 2L Flg
ALR200	200	7.0	150	5	40.0	45	0.26	.400 2L Flg (A)
ALR325	325	6.5	13	2	45.0	38	0.10	.400 2L Flg (A)

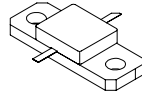
All transistors are configured common base; feature internal input/output matching networks and operate Class C.



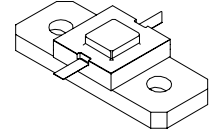
.250 2L Flg



.310 2L Flg



.250 2L Flg (A)



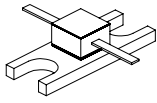
.400 2NL Flg

**Common Base, Class C**

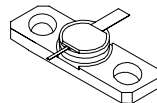
PART NUMBER	FREQ. GHz	P <sub>OUT</sub> Min. Watts	P <sub>G</sub> Min. dB	V <sub>CC</sub> Volts	η <sub>C</sub> Min. %	C <sub>OB</sub> Max. pF	θ <sub>JC</sub> Max. °C/W	PACKAGE STYLE
ASI1001	1.0	1.0	12.0	28	50	3.2	45	.250 2L Flg
ASI1002	1.0	2.0	12.0	28	50	3.2	25	.250 2L Flg
ASI1005	1.0	5.0	12.0	28	50	6.5	15	.250 2L Flg
ASI1010	1.0	10	12.0	28	50	10.0	8.5	.250 2L Flg
ASI1020	1.0	20	10.0	28	50	19.0	5.0	.250 2L Flg
ASAT10*	1.5-1.7	10	11.0	28	45	7.0	6.0	.250 2L Flg (A)
ASAT15*	1.5-1.7	15	9.2	28	45	12.0	4.7	.250 2L Flg (A)
ASAT20*	1.5-1.7	20	9.2	28	45	20.0	4.0	.250 2L Flg (A)
ASAT25**	1.5-1.7	25	9.0	28	50	na	3.5	.250 2L Flg (A)
ASAT30**	1.5-1.7	30	9.0	28	50	na	3.5	.250 2L Flg (A)
ASI2001	2.0	1.0	10.0	28	35	2.5	25	.250 2L Flg
ASI2003	2.0	3.0	10.0	28	35	3.5	15	.250 2L Flg
ASI2005	2.0	5.0	10.0	28	35	5.0	8.5	.250 2L Flg
ASI2010	2.0	10	5.0	28	35	7.5	5.0	.250 2L Flg
ASI2223-4**	2.2 -2.3	4.0	8.0	22	40	na	11	.400 2NL Flg
ASI2223-12**	2.2 -2.3	12	7.5	22	40	na	3.9	.310 2L Flg
ASI2223-20**	2.2 -2.3	20	7.0	22	40	na	2.7	.310 2L Flg
ASI2302	2.3	2.0	9.5	22	33	3.5	25	.250 2L Flg
ASI2304	2.3	4.0	9.5	22	33	5.0	13	.250 2L Flg
ASI2307	2.3	7.0	9.5	22	33	8.5	7.0	.250 2L Flg
ASI3000	3.0	0.5	7.0	28	30	2.5	45	.250 2L Flg
ASI3001	3.0	1.0	7.0	28	30	3.5	25	.250 2L Flg
ASI3003	3.0	3.0	5.0	28	30	5.0	15	.250 2L Flg
ASI3005	3.0	5.0	4.5	28	30	7.5	8.5	.250 2L Flg
ASI4000	4.0	0.5	5.0	28	25	2.5	45	.250 2L Flg
ASI4001	4.0	1.0	5.0	28	25	3.5	25	.250 2L Flg
ASI4003	4.0	3.0	5.0	28	25	5.0	12.5	.250 2L Flg

\* Features internal input matching network.

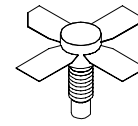
\*\* Features internal input and output matching networks



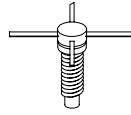
.138 2L Flg



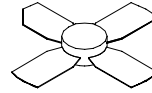
.250 2L Flg



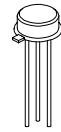
.280 4L Stud



.205 4L Stud



.280 4L Pill



TO-46

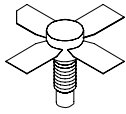
**Common Emitter, Class A Linear**

PART NUMBER	FREQ. Nom. GHz	P <sub>OUT</sub> Min. Watts	P <sub>G</sub> Min. dB	BIAS		C <sub>OB</sub> Max. pF	θ <sub>JC</sub> Max. °C/W	PACKAGE STYLE
				V <sub>CE</sub> Volts	I <sub>CQ</sub> mA			
MLN1027F	1.0	0.5	12.0	20.0	100	3.5	25	.250 2L Flg
MLN1027SS	1.0	0.5	11.0	20.0	100	3.5	25	.205 4L Stud
MLN1027S	1.0	0.5	9.0	20.0	100	3.5	25	.280 4L Stud
MLN1027SL	1.0	0.5	9.0	20.0	100	3.5	25	.280 4L Pill
MLN1030F	1.0	1.0	12.0	20.0	150	5.0	20	.250 2L Flg
MLN1030SS	1.0	1.0	10.0	20.0	150	5.0	20	.205 4L Stud
MLN1030S	1.0	1.0	9.0	20.0	150	5.0	20	.280 4L Stud
MLN1030SL	1.0	1.0	9.0	20.0	150	5.0	20	.280 4L Pill
MLN1033F	1.0	2.0	12.0	18.0	220	5.5	17	.250 2L Flg
MLN1033S	1.0	2.0	9.0	18.0	220	5.5	17	.280 4L Stud
MLN1037F	1.0	5.0	10.0	20.0	800	15.0	5.5	.250 2L Flg
MLN1037S	1.0	5.0	8.0	20.0	800	15.0	5.5	.280 4L Stud
MLN2027F	2.0	0.5	8.0	20.0	120	4.0	25	.250 2L Flg
MLN2027SS	2.0	0.5	6.0	20.0	100	4.0	25	.205 4L Stud
MLN2030F	2.0	1.0	7.0	18.0	220	5.0	17	.250 2L Flg
MLN2030SS	2.0	1.0	10.0	18.0	220	5.0	20	.205 4L Stud
MLN2033F	2.0	2.0	12.0	18.0	220	5.0	17	.250 2L Flg
MLN2037F	2.0	5.0	5.0	20.0	800	15.0	5.5	.250 2L Flg

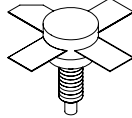
**Common Collector, Oscillators**

PART NUMBER	FREQ. Nom. GHz	P <sub>OUT</sub> Min. Watts	BIAS		η <sub>c</sub> Typ. %	C <sub>OB</sub> Max. pF	θ <sub>JC</sub> Max. °C/W	PACKAGE STYLE
			V <sub>CC</sub> Volts	I <sub>CQ</sub> mA				
OSC-0.7L	1.68	0.7	18	150	25	5.0	25	TO-46
OSC-2.0SM	2.3	2.0	21	300	30	15.0	7	.250 2L Flg
OSC-1.3SH	2.7	1.3	21	200	30	12.0	8.5	.250 2L Flg
OSC-0.3C	7.5	0.3	12	120	22	1.5	30	.138 2L Flg

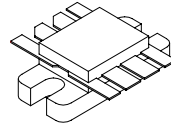
ASI TV/Linear transistors are specifically designed for television broadcast transmitters requiring ultra high linearity.



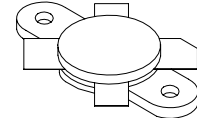
.280 4L Stud



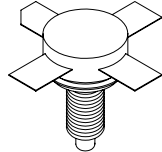
.380 4L Stud



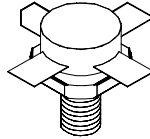
.400 8L Flg



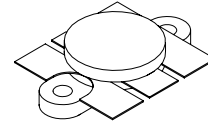
.500 4L Flg



.500 4L Stud



.500 4L Stud (A)



.500 6L Flg

### 108 MHz, Class C, FM Broadcast

PART NUMBER	FREQ. Nom. MHz	P <sub>OUT</sub> Min. Watts	P <sub>G</sub> Min. dB	V <sub>CC</sub> Volts	η <sub>C</sub> Typ. %	C <sub>OB</sub> Typ. pF	θ <sub>JC</sub> Max. °C/W	PACKAGE STYLE
FMB075	108	75	10.0	28	65	75	1.5	.500 4L Flg
FMB150	108	150	9.0	28	65	140	1.1	.500 4L Flg
FMB175	108	175	10.0	28	65	200	0.7	.500 6L Flg

All transistors are configured common emitter and are operated Class C.

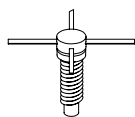
### Television Band III

PART NUMBER	FREQ. Nom. MHz	P <sub>OUT</sub> Min. Watts (PK Sync)	P <sub>G</sub> Min. dB	BIAS		IMD <sup>1</sup> Min. dBc	θ <sub>JC</sub> Max. °C/W	PACKAGE STYLE
				V <sub>CE</sub> Volts	I <sub>C</sub> mA			
TVV005	225	5.0	15.0	28.0	1000	-55	3.5	.280 4L Stud
TVV007	225	7.5	10.0	25.0	1200	-55	3.3	.500 6L Flg
TVV010	225	10	10.0	25.0	1600	-54	2.2	.380 4L Stud
TVV014A	225	14	14.0	25.0	2500	-55	1.5	.500 6L Flg
TVV020	225	20	8.0	25.0	2500	-51	1.5	.500 4L Stud
TVV030	225	30	6.0	25.0	5000	-55	1.2	.500 6L Flg
TVV030A	225	30	7.5	25.0	3500	-53	1.2	.500 4L Stud (A)
TVV100	225	28	14.0	26.5	2 x 2250	-51	0.8	.400 8L Flg
	225	100*	11.0	28.0	2 x 100	-	-	

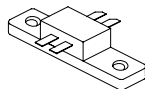
All transistors are configured common emitter.

<sup>1</sup> Vision = - 8dB, Sound = - 10dB and Chroma = - 16dB

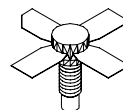
\* 1 dB compression point.



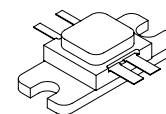
.205 4L Stud



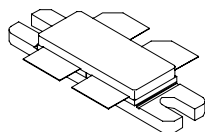
.250 Bal Flg



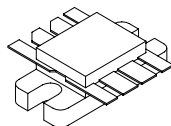
.280 4L Stud



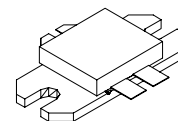
.400 Bal Flg (A)



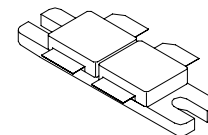
.400 Bal Flg (C)



.400 8L Flg



.450 Bal Flg (A)



.450 4L Flg (B)

**Television Band IV & V**

PART NUMBER	FREQ. Nom. MHz	P <sub>OUT</sub> Watts (PK Sync)	P <sub>G</sub> Min. dB	BIAS		IMD <sup>1</sup> Min. dBc	θ <sub>JC</sub> Max. °C/W	PACKAGE STYLE
				V <sub>CE</sub> Volts	I <sub>C</sub> MA			
TVU 0.5	860	0.5	10.0	20.0	220	-58	22.0	.280 4L Stud
TVU 0.5A	860	0.5	9.5	20.0	150	-58	33.0	.205 4L Stud
TVU 0.5B	860	0.5	12.0	20.0	150	-58	33.0	.205 4L Stud
TVU 001	860	1.0	10.0	20.0	440	-60	9.0	.280 4L Stud
TVU 002	860	2.0	10.0	25.0	410	-60	10.0	.280 4L Stud
TVU 004	860	4.0	8.5	25.0	850	-60	7.0	.280 4L Stud
TVU 012	860	12	9.0	26.5	2 x 0.85	-52	1.6	.400 8L Flg
TVU 014	860	14	8.5	25.0	2 x 850	-50	2.5	.250 Bal Flg
TVU 020	860	20	8.5	26.5	2 x 1350	-46	1.2	.400 Bal Flg (A)
		40*	7.5	28.0	2 x 100	-		
TVU 025	860	25	8.0	25.0	2 x 1600	-45	1.0	.450 Bal Flg (A)
		50*	7.0	28.0	2 x 250	-		
TVU 100	860	100*	8.5	28.0	2 x 100	-	1.0	.450 Bal Flg (A)
TVU 150	860	40	11.0	26.5	2 x 3000	-52	0.55	.400 Bal Flg (C)
		150*	10.0	28.0	2 x 150	-		
TVU 150A	860	150*	6.5	28.0	2 x 500	-	0.55	.450 Bal Flg (B)

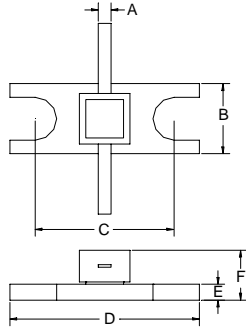
All transistors are configured common emitter.

<sup>1</sup> Vision = - 8dB, Sound = - 10dB and Chroma = - 16dB

\* 1 dB compression point.

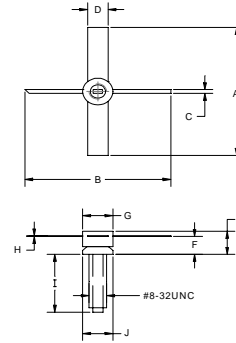
# PACKAGE OUTLINE DRAWINGS

Package Style .138 2L Flg



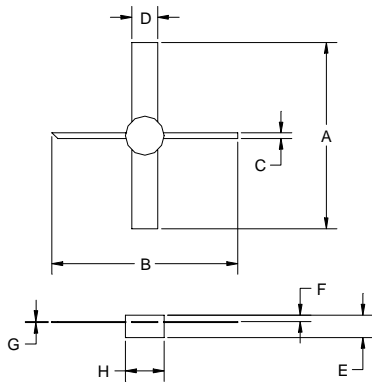
DIM	MINIMUM inches / mm	MAXIMUM inches / mm
A	.025 / 0.635	
B	.138 / 3.505	
C	.275 / 6.985	
D	.375 / 9.525	
E	.031 / 0.787	
F	.062 / 1.575	

Package Style .205 4L Stud



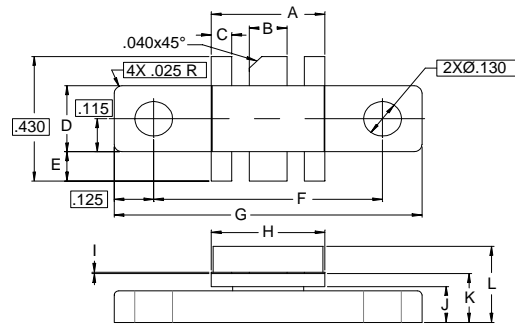
DIM	MINIMUM inches / mm	MAXIMUM inches / mm
A	.976 / 24.800	1.000 / 25.4000
B	.976 / 24.800	1.000 / 25.4000
C	.028 / 0.700	.031 / 0.800
D	.138 / 3.500	
E	.161 / 4.100	.196 / 5.000
F	.098 / 2.500	.110 / 2.800
G	.200 / 5.100	.208 / 5.300
H	.004 / 0.100	.006 / 0.150
I	.425 / 10.800	.465 / 11.800
J	.200 / 5.100	2.05 / 5.200

Package Style .205 4L Pill



DIM	MINIMUM inches / mm	MAXIMUM inches / mm
A	.976 / 24.800	1.00 / 25.400
B	.976 / 24.800	1.00 / 25.400
C	.028 / 0.700	.031 / 0.800
D	.138 / 3.500	
E	.106 / 2.700	.139 / 3.400
F	.039 / 1.000	.047 / 1.200
G	.004 / 0.100	.006 / 0.150
H	.200 / 5.100	.208 / 5.300

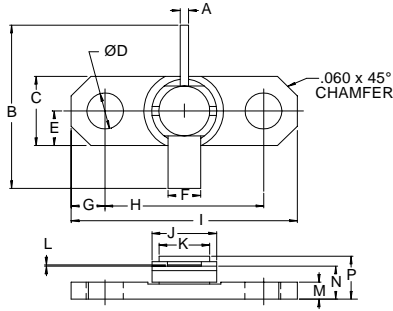
Package Style .230 6L Flg



DIM	MINIMUM inches / mm	MAXIMUM inches / mm
A	.355 / 9.02	.365 / 9.27
B	.115 / 2.92	.125 / 3.18
C	.075 / 1.91	.085 / 2.16
D	.225 / 5.72	.235 / 5.97
E	.090 / 2.29	.110 / 2.79
F	.720 / 18.29	.730 / 18.54
G	.970 / 24.64	.980 / 24.89
H	.355 / 9.02	.365 / 9.27
I	.004 / 0.10	.006 / 0.15
J	.120 / 3.05	.130 / 3.30
K	.160 / 4.06	.180 / 4.57
L	.230 / 5.84	.260 / 6.60

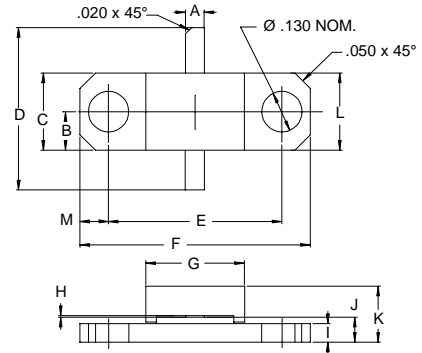
**PACKAGE OUTLINE DRAWINGS**

Package Style .250 2L Flg



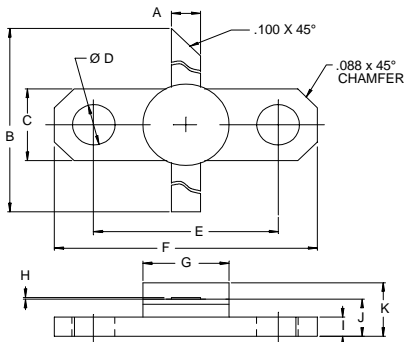
DIM	MINIMUM inches / mm	MAXIMUM inches / mm
A	.028 / 0.71	.032 / 0.81
B	.740 / 18.80	
C	.245 / 6.22	.255 / 6.48
D	.128 / 3.25	.132 / 3.35
E	.125 / 3.18	
F	.110 / 2.79	.117 / 2.97
G	.117 / 2.97	
H	.560 / 14.22	.570 / 14.48
I	.790 / 20.07	.810 / 20.57
J	.225 / 5.72	.235 / 5.97
K	.165 / 4.19	.185 / 4.70
L	.003 / 0.08	.007 / 0.18
M	.058 / 1.47	.068 / 1.73
N	.119 / 3.02	.135 / 3.43
P	.149 / 3.78	.187 / 4.75

Package Style .250 2L Flg (A)



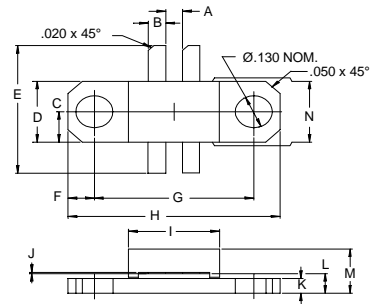
DIM	MINIMUM inches / mm	MAXIMUM inches / mm
A	.055 / 1.40	.065 / 1.65
B	.124 / 3.15	
C	.243 / 6.17	.253 / 6.43
D	.635 / 16.13	.665 / 16.89
E	.555 / 14.10	.565 / 14.35
F	.739 / 18.77	.749 / 19.02
G	.315 / 8.00	.325 / 8.26
H	.002 / 0.05	.006 / 0.15
I	.055 / 1.40	.065 / 1.65
J	.075 / 1.91	.095 / 2.41
K		.190 / 4.83
L	.245 / 6.22	.255 / 6.48
M	.092 / 2.34	

Package Style .250 2L Flg (B)



DIM	MINIMUM inches / mm	MAXIMUM inches / mm
A	.095 / 2.41	.105 / 2.67
B	1.050 / 26.67	
C	.245 / 6.22	.255 / 6.48
D	.120 / 3.05	.140 / 3.56
E	.552 / 14.02	.572 / 14.53
F	.790 / 20.07	.810 / 20.57
G	.285 / 7.24	
H	.003 / 0.08	.007 / 0.18
I	.052 / 1.32	.072 / 1.83
J	.120 / 3.05	.130 / 3.30
K		.210 / 5.33

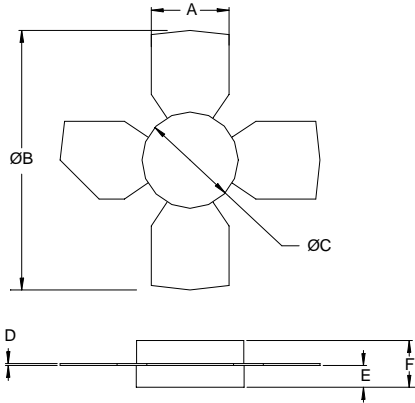
Package Style .250 Bal Flg



DIM	MINIMUM inches / mm	MAXIMUM inches / mm
A	.060 / 1.52	
B	.055 / 1.40	.065 / 1.65
C	.125 / 3.18	
D	.243 / 6.17	.255 / 6.48
E	.630 / 16.00	.670 / 17.01
F	.092 / 2.34	
G	.555 / 14.10	.565 / 14.35
H	.739 / 18.77	.750 / 19.05
I	.315 / 8.00	.327 / 8.31
J	.002 / 0.05	.006 / 0.15
K	.055 / 1.40	.065 / 1.65
L	.075 / 1.91	.095 / 2.41
M		.190 / 4.83
N	.245 / 6.22	.257 / 6.53

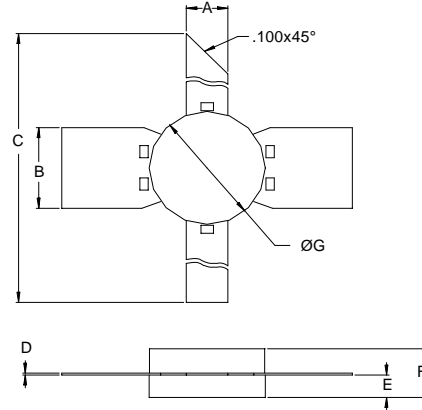
# PACKAGE OUTLINE DRAWINGS

Package Style .280 4L Pill



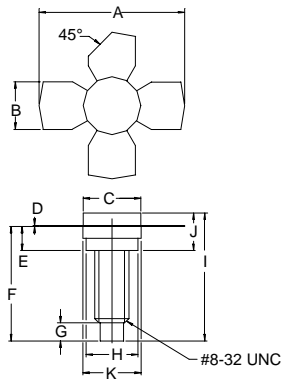
DIM	MINIMUM inches / mm	MAXIMUM inches / mm
A	.220 / 5.59	.230 / 5.84
B		1.055 / 26.80
C	.275 / 6.99	.285 / 7.24
D	.004 / 0.10	.006 / 0.15
E	.050 / 1.27	.060 / 1.52
F	.118 / 3.00	.130 / 3.30

Package Style .280 4L Pill (A)



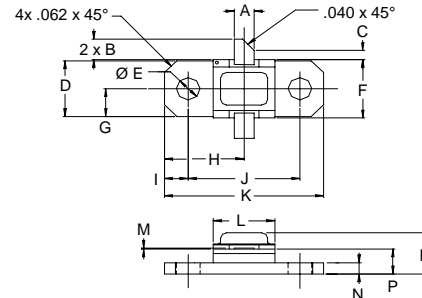
DIM	MINIMUM inches / mm	MAXIMUM inches / mm
A	.095 / 2.41	.105 / 2.67
B	.195 / 4.95	.205 / 5.21
C	1.000 / 25.40	
D	.004 / 0.10	.007 / 0.18
E	.050 / 1.27	.065 / 1.65
F		.145 / 3.68
G	.275 / 6.99	.285 / 7.21

Package Style .280 4L Stud



DIM	MINIMUM inches / mm	MAXIMUM inches / mm
A	1.010 / 25.65	1.055 / 26.80
B	.220 / 5.59	.230 / 5.84
C	.270 / 6.86	.285 / 7.24
D	.003 / 0.08	.007 / 0.18
E	.117 / 2.97	.137 / 3.48
F		.572 / 14.53
G		.130 / 3.30
H	.245 / 6.22	.255 / 6.48
I		.640 / 16.26
J	.175 / 4.45	.217 / 5.51
K	.275 / 6.99	.285 / 7.24

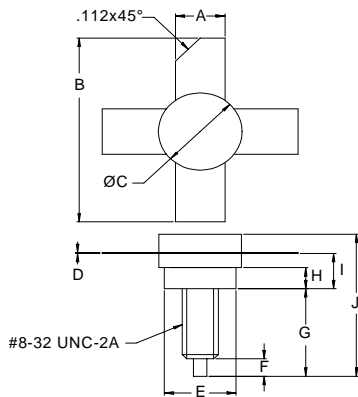
Package Style .310 2L Flg



DIM	MINIMUM inches / mm	MAXIMUM inches / mm
A	.095 / 2.41	.105 / 2.67
B	.100 / 2.54	.120 / 3.05
C	.050 / 1.27	
D	.286 / 7.26	.306 / 7.77
E	.110 / 2.79	.130 / 3.30
F	.306 / 7.77	.318 / 8.08
G		.148 / 3.76
H		.400 / 10.16
I		.119 / 3.02
J	.552 / 14.02	.572 / 14.53
K	.790 / 20.07	.810 / 20.57
L	.300 / 7.62	.320 / 8.13
M	.003 / 0.08	.006 / 0.15
N	.052 / 1.32	.072 / 1.83
P	.118 / 3.00	.131 / 3.33
R		.230 / 5.84

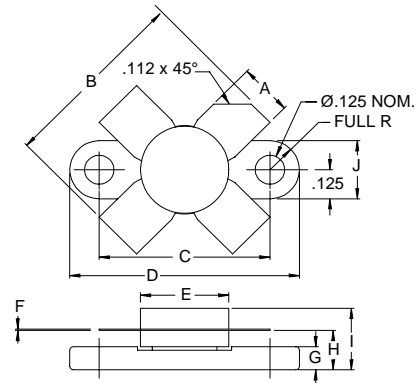
**PACKAGE OUTLINE DRAWINGS**

Package Style .380 4L Stud



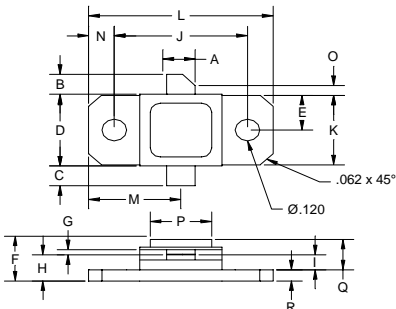
DIM	MINIMUM inches / mm	MAXIMUM inches / mm
A	.220 / 5.59	.230 / 5.84
B	.980 / 24.89	
C	.370 / 9.40	.385 / 9.78
D	.004 / 0.10	.007 / 0.18
E	.320 / 8.13	.330 / 8.38
F	.100 / 2.54	.130 / 3.30
G	.450 / 11.43	.490 / 12.45
H	.090 / 2.29	.100 / 2.54
I	.155 / 3.94	.175 / 4.45
J		.750 / 19.05

Package Style .380 4L Flg



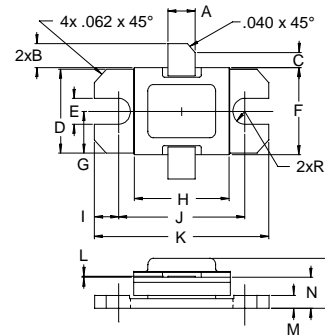
DIM	MINIMUM inches / mm	MAXIMUM inches / mm
A	.220 / 5.59	.230 / 5.84
B	.785 / 19.94	
C	.720 / 18.29	.730 / 18.54
D	.970 / 24.64	.980 / 24.89
E		.385 / 9.78
F	.004 / 0.10	.006 / 0.15
G	.085 / 2.16	.105 / 2.67
H	.160 / 4.06	.180 / 4.57
I		.280 / 7.11
J	.240 / 6.10	.255 / 6.48

Package Style .400 2L Flg



DIM	MINIMUM inches / mm	MAXIMUM inches / mm
A		.140 / 3.56
B		.110 / 2.80
C		.110 / 2.80
D	.395 / 10.03	.407 / 10.34
E		.193 / 4.90
F		.230 / 5.84
G	.003 / 0.08	.006 / 0.15
H	.118 / 3.00	.131 / 3.33
I		.063 / 1.60
J		.650 / 16.51
K		.386 / 9.80
L		.900 / 22.86
M		.450 / 11.43
N		.125 / 3.18
O	.050 / 1.27	
P		.405 / 10.29
Q		.170 / 4.32
R		.062 / 1.58

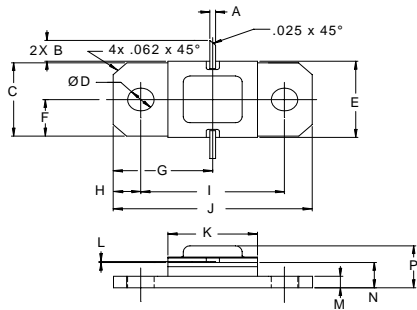
Package Style .400 2L Flg (A)



DIM	MINIMUM inches / mm	MAXIMUM inches / mm
A	.135 / 3.43	.145 / 3.68
B	.100 / 2.54	.120 / 3.05
C	.050 / 1.27	
D	.376 / 9.55	.396 / 10.06
E	.110 / 2.79	.130 / 3.30
F	.395 / 10.03	.407 / 10.34
G		.193 / 4.90
H	.490 / 12.45	.510 / 12.95
I		.100 / 2.54
J	.690 / 17.53	.710 / 18.03
K	.890 / 22.61	.910 / 23.11
L	.003 / 0.08	.006 / 0.18
M	.052 / 1.32	.072 / 1.83
N	.118 / 3.00	.131 / 3.33
P		.230 / 5.84

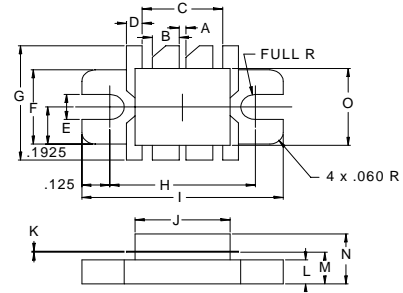
# PACKAGE OUTLINE DRAWINGS

Package Style .400 2NL Flg



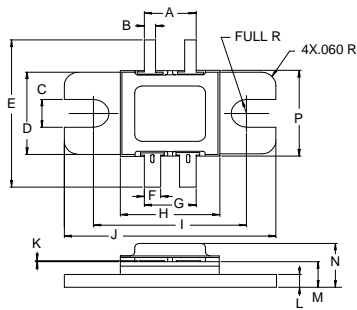
DIM	MINIMUM inches / mm	MAXIMUM inches / mm
A	.020 / 0.51	.030 / 0.76
B	.100 / 2.54	
C	.376 / 9.55	.396 / 10.06
D	.110 / 2.79	.130 / 3.30
E	.395 / 10.03	.407 / 10.34
F	.193 / 4.90	
G	.450 / 11.43	
H	.125 / 3.18	
I	.640 / 16.26	.660 / 16.76
J	.890 / 22.61	.910 / 23.11
K	.395 / 10.03	.415 / 10.54
L	.004 / 0.10	.007 / 0.18
M	.052 / 1.32	.072 / 1.83
N	.118 / 3.00	.131 / 3.33
P		.230 / 5.84

Package Style .400 8L Flg



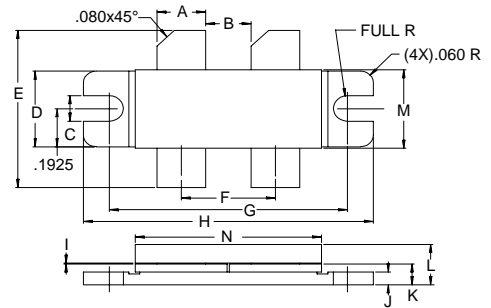
DIM	MINIMUM inches / mm	MAXIMUM inches / mm
A		.030 / 0.76
B	.115 / 2.92	.125 / 3.18
C		.360 / 9.14
D	.065 / 1.65	.075 / 1.91
E		.130 / 3.30
F	.380 / 9.65	.390 / 9.91
G	.735 / 18.67	.765 / 19.43
H	.645 / 16.38	.655 / 16.64
I	.895 / 22.73	.905 / 22.99
J	.420 / 10.67	.430 / 10.92
K	.003 / 0.08	.007 / 0.18
L	.120 / 3.05	.130 / 3.30
M	.159 / 4.04	.175 / 4.45
N		.280 / 7.11
O	.395 / 10.03	.405 / 10.29

Package Style .400 Bal Flg (A)



DIM	MINIMUM inches / mm	MAXIMUM inches / mm
A	.210 / 5.33	.230 / 5.84
B	.045 / 1.14	.055 / 1.40
C	.125 / 3.18	.135 / 3.43
D	.380 / 9.65	.390 / 9.91
E	.770 / 19.56	.830 / 21.08
F	.070 / 1.78	.080 / 2.03
G	.215 / 5.46	.235 / 5.97
H	.420 / 10.67	.430 / 10.92
I	.645 / 16.38	.655 / 16.64
J	.895 / 22.73	.905 / 22.99
K	.002 / 0.05	.006 / 0.15
L	.058 / 1.47	.065 / 1.65
M	.115 / 2.92	.130 / 3.30
N		.230 / 5.84
P	.395 / 10.03	.405 / 10.29

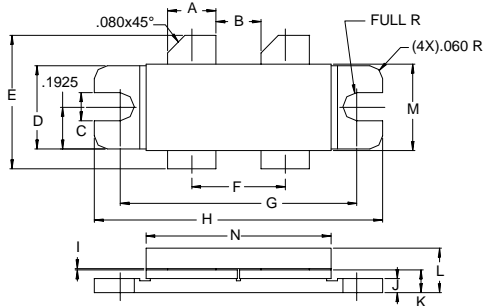
Package Style .400 Bal Flg (C)



DIM	MINIMUM inches / mm	MAXIMUM inches / mm
A	.220 / 5.59	.230 / 5.84
B	.210 / 5.33	
C	.120 / 3.05	.130 / 3.30
D	.380 / 9.65	.390 / 9.91
E	.780 / 19.81	.820 / 20.83
F	.435 / 11.05	
G	1.090 / 27.69	
H	1.335 / 33.91	1.345 / 34.16
I	.003 / 0.08	.007 / 0.18
J	.060 / 1.52	.070 / 1.78
K	.082 / 2.08	.100 / 2.54
L		.205 / 5.21
M	.395 / 10.03	.407 / 10.34
N	.850 / 21.59	.870 / 22.10

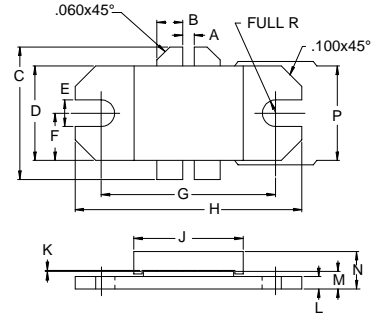
# PACKAGE OUTLINE DRAWINGS

Package Style .400 Bal Flg (D)



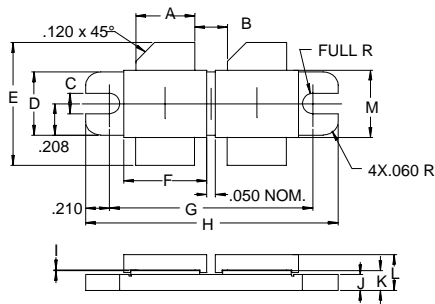
DIM	MINIMUM inches / mm	MAXIMUM inches / mm
A	.220 / 5.59	.230 / 5.84
B	.210 / 5.33	
C	.125 / 3.18	
D	.380 / 9.65	.390 / 9.91
E	.580 / 14.73	.620 / 15.75
F	.435 / 11.05	
G	1.090 / 27.69	1.105 / 28.07
H	1.335 / 33.91	1.345 / 34.16
I	.003 / 0.08	.007 / 0.18
J	.060 / 1.52	.070 / 1.78
K	.100 / 2.54	.115 / 2.92
L		.230 / 5.84
M	.395 / 10.03	.407 / 10.34
N	.850 / 21.59	.870 / 22.10

Package Style .450 Bal Flg (A)



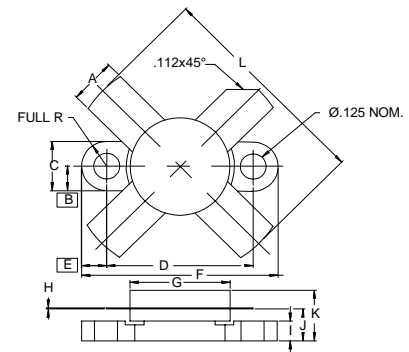
DIM	MINIMUM inches / mm	MAXIMUM inches / mm
A	.055 / 1.40	
B	.120 / 3.05	.130 / 3.30
C		.785 / 19.94
D	.455 / 11.56	.465 / 11.81
E	.120 / 3.05	.130 / 3.30
F	.230 / 5.84	
G	.838 / 21.28	.850 / 21.59
H	1.095 / 27.81	1.105 / 28.07
J	.525 / 13.34	.535 / 13.59
K	.002 / 0.05	.005 / 0.15
L	.055 / 1.40	.065 / 1.65
M	.080 / 2.03	.095 / 2.41
N		.195 / 4.95
P	.445 / 11.30	.455 / 11.56

Package Style .450 Bal Flg (B)



DIM	MINIMUM inches / mm	MAXIMUM inches / mm
A	.373 / 9.47	.385 / 9.78
B	.205 / 5.21	
C	.120 / 3.25	.130 / 3.30
D	.411 / 10.44	.421 / 10.69
E	.825 / 20.96	.865 / 21.97
F	.525 / 13.34	.535 / 13.59
G	1.255 / 31.88	1.265 / 32.18
H	1.675 / 42.55	1.685 / 42.80
I	.002 / 0.05	.006 / 0.15
J	.095 / 2.41	.105 / 2.67
K	.115 / 2.92	.135 / 3.43
L		.250 / 6.35
M	.445 / 11.30	.457 / 11.61

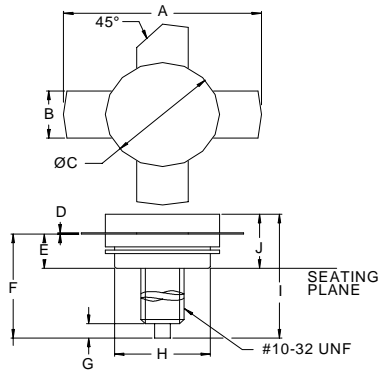
Package Style .500 4L Flg



DIM	MINIMUM inches / mm	MAXIMUM inches / mm
A	.220 / 5.59	.230 / 5.84
B	.125 / 3.18	
C	.245 / 6.22	.255 / 6.48
D	.720 / 18.28	.730 / 18.54
E	.125 / 3.18	
F	.970 / 24.64	.980 / 24.89
G	.495 / 12.57	.505 / 12.83
H	.003 / 0.08	.007 / 0.18
I	.090 / 2.29	.110 / 2.79
J	.150 / 3.81	.175 / 4.45
K		.280 / 7.11
L	.980 / 24.89	1.050 / 26.67

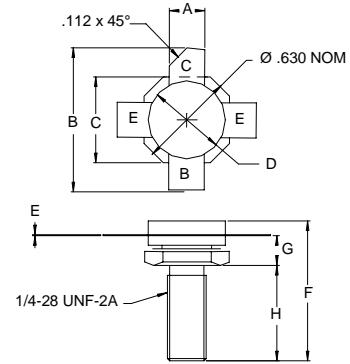
# PACKAGE OUTLINE DRAWINGS

Package Style .500 4L Stud



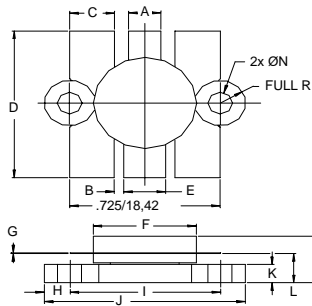
DIM	MINIMUM inches / mm	MAXIMUM inches / mm
A	1.010 / 25.65	1.050 / 26.67
B	.220 / 5.59	.230 / 5.84
C	.495 / 12.57	.505 / 12.83
D	.003 / 0.08	.007 / 0.18
E	.160 / 4.06	.180 / 4.57
F	.622 / 15.80	
G	.100 / 2.54	.130 / 3.31
H	.415 / 10.54	.425 / 10.80
I	.720 / 18.29	
J	.250 / 6.35	.290 / 7.37

Package Style .500 4L Stud (A)



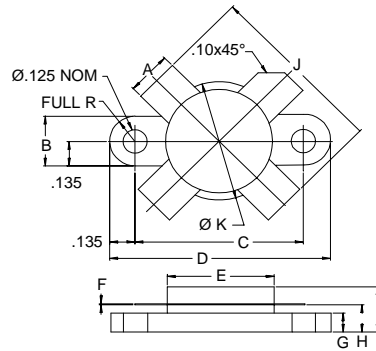
DIM	MINIMUM inches / mm	MAXIMUM inches / mm
A	.220 / 5.59	.230 / 5.84
B		1.050 / 26.67
C	.545 / 13.84	.555 / 14.10
D	.495 / 12.57	.505 / 12.83
E	.003 / 0.08	.007 / 0.18
F		.830 / 21.08
G	.185 / 4.70	.198 / 5.03
H	.497 / 12.62	.530 / 13.46

Package Style .500 6L Flg



DIM	MINIMUM inches / mm	MAXIMUM inches / mm
A	.150 / 3.43	.160 / 4.06
B		.045 / 1.14
C	.210 / 5.33	.220 / 5.59
D	.835 / 21.21	.865 / 21.97
E	.200 / 5.08	.210 / 5.33
F	.490 / 12.45	.510 / 12.95
G	.003 / 0.08	.007 / 0.18
H	.125 / 3.18	
I	.725 / 18.42	
J	.970 / 24.64	.980 / 24.89
K	.090 / 2.29	.105 / 2.67
L	.150 / 3.81	.170 / 4.32
M		.285 / 7.24
N	.120 / 3.05	.135 / 3.43

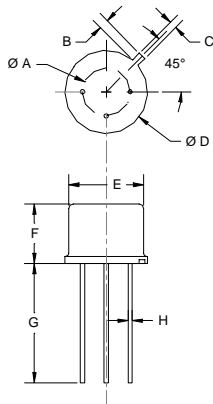
Package Style .550 4L Flg



DIM	MINIMUM inches / mm	MAXIMUM inches / mm
A	.225 / 5.72	.235 / 5.97
B	.265 / 6.73	.275 / 6.96
C	.880 / 21.84	.870 / 22.10
D	1.130 / 28.70	1.140 / 28.96
E	.545 / 13.84	.555 / 14.10
F	.003 / 0.08	.007 / 0.18
G	.098 / 2.49	.118 / 3.00
H	.150 / 3.81	.170 / 4.32
I		.280 / 7.11
J	1.080 / 27.43	1.120 / 28.45
K	.625 / 15.88	.635 / 16.13

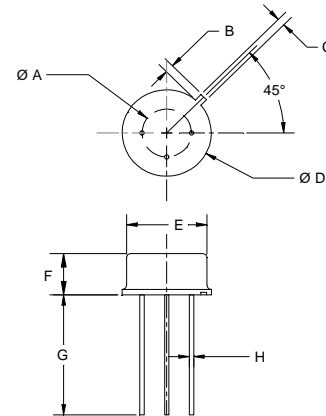
**PACKAGE OUTLINE DRAWINGS**

Package Style TO-39



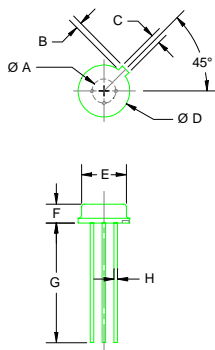
DIM	MINIMUM inches / mm	MAXIMUM inches / mm
A	.200 / 5.080	
B	.029 / 0.740	.045 / 1.140
C	.028 / 0.720	.034 / 0.860
D	.335 / 8.510	.370 / 9.370
E	.305 / 7.750	.335 / 8.500
F	.240 / 6.100	.260 / 6.600
G	.500 / 12.700	
H	.016 / 0.407	.020 / 0.508

Package Style TO-39GE



DIM	MINIMUM inches / mm	MAXIMUM inches / mm
A	.200 / 5.080	
B	.029 / 0.740	.045 / 1.140
C	.028 / 0.720	.034 / 0.860
D	.355 / 9.020	.370 / 9.370
E	.315 / 8.010	.335 / 8.500
F	.165 / 4.200	.180 / 4.570
G	.500 / 12.700	
H	.016 / 0.410	.020 / 0.508

Package Style TO-46



DIM	MINIMUM inches/mm	MAXIMUM inches/mm
A	.100 / 2.540	
B	.028 / 0.710	.048 / 1.220
C	.035 / 0.890	.046 / 1.170
D	.209 / 5.310	.229 / 5.840
E	.178 / 4.520	.195 / 4.950
F	.065 / 1.650	.085 / 2.160
G	.500 / 12.700	
H	.012 / 0.3050	.019 / 0.4830

**MOTOROLA**

Part Number	ASI Exact Replacement	ASI Similar Device	Pg #
LT3046	OSC-0.7L		13
MRF134	VFT5-28		5
MRF136	VFT15-28		5
MRF137	VFT30-28		5
MRF138	VFT30-28		5
MRF140	VFT150-28		5
MRF141	HFT150-28		2
MRF141G	VFT300-28		5
MRF148	VFT30-50		5
MRF150	HFT150-50		2
MRF151	VFT150-50		5
MRF151G	VFT300-50		5
MRF160	UFT5-28SL		5
MRF161	UFT5-28		5
MRF162	<i>Consult Factory</i>		na
MRF171	VFT45-28		5
MRF172	VFT80-28		5
MRF174		VFT150-28	5
MRF226	VMB10-12S		3
MRF227	<i>Consult Factory</i>		na
MRF229	VHB1-12T		4
MRF232	VMB10-12S		3
MRF233		VMB10-12S	3
MRF234		VMB40-12S	3
MRF237	<i>Consult Factory</i>		na
MRF240	VHB40-12S		4
MRF240A	VHB40-12F		4
MRF247	VHB80-12		4
MRF313	<i>Consult Factory</i>		na
MRF314	VHB25-28F		4
MRF314A	VHB25-28S		4
MRF315	VHB40-28F		4
MRF315A	VHB40-28S		4
MRF316		VHB125-28	4
MRF317	VHB125-28		4
MRF321	UML10		8
MRF323	UML25S		8
MRF325	UML25F		8
MRF326		UML70	8
MRF327	UML100		8

Part Number	ASI Exact Replacement	ASI Similar Device	Pg #
MRF392	UML125B		8
MRF393	UML125B		8
MRF401	HF30-28S		1
MRF406	HF20-12F		1
MRF410	HF15-28F		1
MRF410A	HF15-28S		1
MRF421	HF100-12		1
MRF421MP	HF100-12MP		1
MRF422	HF220-28		1
MRF422MP	HF220-28MP		1
MRF426	<i>Consult Factory</i>		na
MRF427	<i>Consult Factory</i>		na
MRF427A	<i>Consult Factory</i>		na
MRF428	HF150-50F		2
MRF429		HF150-50F	2
MRF429MP		HF150-50FMP	2
MRF433	HF10-12F		1
MRF448	HF220-50		2
MRF449A	HF20-12S		1
MRF450	HF50-12F		1
MRF450A	HF50-12S		1
MRF454	HF75-12		1
MRF455	HF50-12F		1
MRF455A	HF50-12S		1
MRF458	<i>Consult Factory</i>		na
MRF460	<i>Consult Factory</i>		na
MRF464	HF100-28		1
MRF464A	<i>Consult Factory</i>		na
MRF466	HF75-28F		1
MRF492	<i>Consult Factory</i>		na
MRF492A	<i>Consult Factory</i>		na
MRF604		OSC-0.7L	13
MRF627	ULBM05		6
MRF630	<i>Consult Factory</i>		na
MRF641	ULBM15		6
MRF644	ULBM25		6
MRF646	ULBM45		6
MRF652		ULBM5	6
MRF653		ULBM10	6
MRF838		MLN1027SS	13

Part Number	ASI Exact Replacement	ASI Similar Device	Pg #
<b>MRF839</b>		MLN1030SS	13
<b>MRF841F</b>		MLN1033S	13
<b>MRF890</b>	CBSL2SS		7
<b>MRF891</b>	CBSL6		7
<b>MRF892</b>	CBSL15		7
<b>MRF894</b>	CBSL30		7
<b>MRF898</b>	<i>Consult Factory</i>		na
<b>MRF1000MA</b>	<i>Consult Factory</i>		na
<b>MRF1000MB</b>	AVD0.5P		9
<b>MRF1000MC</b>	<i>Consult Factory</i>		na
<b>MRF1002MA</b>	<i>Consult Factory</i>		na
<b>MRF1002MB</b>	AVD002P		9
<b>MRF1002MC</b>	AVD002F		9
<b>MRF1004MA</b>	<i>Consult Factory</i>		na
<b>MRF1004MB</b>	AVD004P		9
<b>MRF1004MC</b>	AVD004F		9
<b>MRF1015MA</b>	<i>Consult Factory</i>		na
<b>MRF1015MB</b>	AVD015P		9
<b>MRF1015MC</b>	AVD015F		9
<b>MRF1035MA</b>	<i>Consult Factory</i>		na
<b>MRF1035MB</b>	AVD035P		9
<b>MRF1035MC</b>	AVD035F		9
<b>MRF1090MA</b>	<i>Consult Factory</i>		na
<b>MRF1090MB</b>	AVD090P		9
<b>MRF1090MC</b>	AVD090F		9
<b>MRF1150M</b>	AVD150		9
<b>MRF1250M</b>	AVD250		9
<b>MRF1325M</b>	AVD350		9
<b>MRF1946</b>	VHB25-12F		4
<b>MRF1946A</b>	VHB25-12S		4
<b>MRF2001</b>	ASI2001		12
<b>MRF2003</b>	ASI2003		12
<b>MRF2005</b>	ASI2005		12
<b>MRF2010</b>	ASI2010		12
<b>MRF4070</b>	VHB80-12		4
<b>MRF5174</b>	UML3		8
<b>MRF5175</b>	UML5		8
<b>MRW2001</b>	ASI2001		12
<b>MRW2003</b>	ASI2003		12
<b>MRW2005</b>	ASI2005		12

Part Number	ASI Exact Replacement	ASI Similar Device	Pg #
<b>MRW2010</b>	ASI2010		12
<b>MRW2301</b>		ASI2302	12
<b>MRW2304</b>	ASI2304		12
<b>MRW2307</b>	ASI2307		12
<b>MRW3000</b>	ASI3000		12
<b>MRW3001</b>	ASI3001		12
<b>MRW3003</b>	ASI3003		12
<b>MRW3005</b>	ASI3005		12
<b>MRW52501</b>		MLN2030SS	13
<b>MRW52601</b>	MLN2033F		13
<b>MRW52602</b>		MLN2033F	13
<b>MRW52604</b>	MLN1037F		13
<b>MRW53501</b>	MLN2027F		13
<b>MRW53601</b>		MLN2027SS	13
<b>MRW53502</b>		MLN2030SS	13
<b>MRW53602</b>		MLN2030F	13
<b>MRW53505</b>		MLN2037F	13
<b>MRW54501</b>		MLN2027SS	13
<b>MRW54601</b>		MLN2027F	13
<b>MRW62601</b>	OSC-1.3SH		13
<b>MRW62602</b>		OSC-2.0SM	13
<b>MRW63601</b>		OSC-1.3SH	13
<b>MRW63602</b>		OSC-1.3SH	13
<b>PT8809A</b>	ULBM2		6
<b>PT8810</b>	ULBM5		6
<b>PT8811A</b>	ULBM10		6
<b>PT8852</b>		VLB40-12F	3
<b>PT8852A</b>		VLB40-12S	3
<b>PT8853</b>	VLB40-12F		3
<b>PT8853A</b>	VLB40-12S		3
<b>PT9700</b>		UMIL1	8
<b>PT9701B</b>	UML5		8
<b>PT9702B</b>	UML10		8
<b>PT9703B</b>	UML15		8
<b>PT9704B</b>	UML25S		8
<b>PT9730</b>		VHB10-28S	4
<b>PT9731</b>	VHB25-28S		4
<b>PT9732</b>	VHB10-28S		4
<b>PT9734</b>		VHB25-28S	4
<b>PT9780</b>	HF100-28		1

Part Number	ASI Exact Replacement	ASI Similar Device	Pg #
PT9783		HF75-28F	1
PT9783A		HF75-28S	1
PT9784	HF75-28F		1
PT9784A	HF75-28S		1
PT9785	HF100-12		1
PT9790	HF150-50F		2
PT9798	HF75-50F		2
RF1029	MLN1033S		13
RF1030		MLN1037S	13
RF1032	MLN1037S		13
TP251		ULBM05	6
TP254		ULBM2	6
TP254S		ULBM2SL	6
TP301		MLN1027SS	13
TP302		MLN1027SS	13
TP303		MLN1030SS	13
TP304		MLN1037S	13
TP2031	Consult Factory		na
TP2032	VHB10-12S		4
TP2032F	VHB10-12F		4
TP2033	VHB25-12S		4
TP2034	VHB40-12S		4
TP2034F	VHB40-12F		4
TP2037	VHB40-12S		4
TP2300	Consult Factory		na
TP2304	VMB40-12S		3
TP2306	Consult Factory		na
TP2307	Consult Factory		na
TP2314	Consult Factory		na
TP2317	VHB25-12S		4
TP2325	VHB25-12S		4
TP2330	VHB40-12S		4
TP2330F	VHB40-12F		4
TP2370	Consult Factory		na
TP2502	ULBM2SL		6
TP2503	ULBM5SL		6
TP2505	ULBM5		6
TP2505S	ULBM5SL		6
TP2510	ULBM10		6
TP3009		MLN1027SS	13

Part Number	ASI Exact Replacement	ASI Similar Device	Pg #
TP3009S	Consult Factory		na
TP3010		MLN1027SS	13
TP3010S	Consult Factory		na
TP3020A	CBSL2		7
TP3023	Consult Factory		na
TP3024A	CBSL30B		7
TP3026	CBSL30		7
TP5002	MLN1030S		13
TP5002S	MLN1030SL		13
TP5050		ULBM45	6
TP8828	VHB10-12S		4
TP8828F	VHB10-12F		4
TP9380	FMB075		14
TP9383	FMB150		14
TP9386	VHB125-28		4
TP9390	Consult Factory		na
TPM401	MLN1027S		13
TPM401S	MLN1027SL		13
TPM405	UML5		8
TPM425	UML25S		8
TPM4100		UML125B	8
TPM4130		UML125B	8
TPV364	TVV010		14
TPV375	TVV020		14
TPV385	TVV014A		14
TPV387		TVV014A	14
TPV394A	TVV005		14
TPV590	TVU0.5B		15
TPV591	TVU0.5B		15
TPV593	TVU002		15
TPV595A	TVU014		15
TPV596A	TVU0.5		15
TPV597	TVU001		15
TPV598	TVU004		15
TPV695B	Consult Factory		na
TPV698	TVU004		15
TPV3100	TVV100		14
TPV3250B	Consult Factory		na
TPV5055B	TVU025		15
TPV7025	TVU025		15

Part Number	ASI Exact Replacement	ASI Similar Device	Pg #
<b>BFQ42</b>	<i>Consult Factory</i>		na
<b>BFQ43</b>	<i>Consult Factory</i>		na
<b>BFQ43S</b>	<i>Consult Factory</i>		na
<b>BLF147</b>		VFT150-28	5
<b>BLF175</b>		VFT30-50	5
<b>BLF177</b>		VFT150-50	5
<b>BLF242</b>		VFT5-28	5
<b>BLF244</b>		VFT15-28	5
<b>BLF245</b>		VFT30-28	5
<b>BLF246</b>		VFT45-28	5
<b>BLF278</b>		VFT300-50	5
<b>BLF368</b>		VFT300-28	5
<b>BLU11/SL</b>		ULBM2SL	6
<b>BLU15/12</b>		ULBM10	6
<b>BLU20/12</b>	ULBM15		6
<b>BLU30/12</b>	ULBM25		6
<b>BLU45/12</b>	ULBM45		6
<b>BLU60/12</b>		ULBM45	6
<b>BLU99</b>		ULBM5	6
<b>BLU99/SL</b>		ULBM5SL	6
<b>BLV10</b>	VHB10-12F		4
<b>BLV11</b>		VHB10-12F	4
<b>BLV12</b>	VHB25-12F		4
<b>BLV13</b>	VHB40-12F		4
<b>BLV20</b>	VHB10-28F		4
<b>BLV21</b>		VHB10-28F	4
<b>BLV25</b>	FMB175		14
<b>BLV30</b>	TVU002		15
<b>BLV31</b>	TVV005		14
<b>BLV33</b>		TVV030A	14
<b>BLV33F</b>	TVV014A		14
<b>BLV36</b>	TVV100		14
<b>BLV37</b>	<i>Consult Factory</i>		na
<b>BLV57</b>	TVU012		15
<b>BLV58</b>	TVU025		15
<b>BLV59</b>	<i>Consult Factory</i>		na
<b>BLV62</b>		TVU150	15
<b>BLV75-12</b>		VHB80-12	4
<b>BLV80-28</b>		VHB125-28	4
<b>BLV97CE</b>	CBSL30		7

Part Number	ASI Exact Replacement	ASI Similar Device	Pg #
<b>BLV98CE</b>	CBSL15		7
<b>BLV99</b>	CBSL2SS		7
<b>BLV99/SL</b>	<i>Consult Factory</i>		na
<b>BLV100</b>		CBSL6	7
<b>BLV103</b>		CBSL6	7
<b>BLV193</b>		CBSL15	7
<b>BLV194</b>	CBSL15		7
<b>BLV945A</b>	CBSL30B		7
<b>BLV945B</b>	CBSL30B		7
<b>BLV947</b>	CBSL100		7
<b>BLV948</b>	CBSL150		7
<b>BLW29</b>	VHB10-12S		4
<b>BLW30</b>	VHB25-12S		4
<b>BLW31</b>	VHB25-28S		4
<b>BLW32</b>	TVU0.5		15
<b>BLW33</b>	TVU001		15
<b>BLW34</b>	TVU004		15
<b>BLW40</b>	VHB40-12S		4
<b>BLW50F</b>	HF75-50F		2
<b>BLW60C</b>	VHB50-28S		4
<b>BLW76</b>	HF75-28F		1
<b>BLW77</b>	HF100-28		1
<b>BLW78</b>	<i>Consult Factory</i>		na
<b>BLW79</b>	ULBM2		6
<b>BLW80</b>	ULBM5		6
<b>BLW81</b>	ULBM10		6
<b>BLW83</b>	HF10-12F		1
<b>BLW84</b>	VHB25-28F		4
<b>BLW85</b>	VHB50-12F		na
<b>BLW86</b>	VHB40-28F		4
<b>BLW87</b>	VHB25-12F		4
<b>BLW89</b>		CBSL2	7
<b>BLW90</b>		UML3	8
<b>BLW91</b>		UML10	8
<b>BLW95</b>	HF150-50F		2
<b>BLW96</b>	HF220-50		2
<b>BLW97</b>	HF220-28		1
<b>BLW98</b>	TVU004		15
<b>BLW99</b>	HF75-12		1
<b>BLX13</b>		HF30-28S	1

Part Number	ASI Exact Replacement	ASI Similar Device	Pg #
<b>BLX13C</b>	HF30-28S		1
<b>BLX14</b>	<i>Consult Factory</i>		na
<b>BLX15</b>	HF150-50S		2
<b>BLX39</b>	HF75-28S		1
<b>BLX65</b>	<i>Consult Factory</i>		na
<b>BLX65E</b>	<i>Consult Factory</i>		na
<b>BLX65ES</b>	<i>Consult Factory</i>		na
<b>BLX68</b>		ULBM2	6
<b>BLX91A</b>		UML1	8
<b>BLX92A</b>		UML3	8
<b>BLX93A</b>		UML1	8
<b>BLX94A</b>		UML25S	8
<b>BLX94C</b>		UML25S	8
<b>BLX96</b>	TVU001		15
<b>BLX97</b>	TVU001		15
<b>BLX98</b>	TVU004		15
<b>BLY87A</b>	VHB10-12S		4
<b>BLY87C</b>	VHB10-12S		4
<b>BLY88A</b>		VHB25-12S	4
<b>BLY88C</b>		VHB25-12S	4
<b>BLY89A</b>		VHB25-12S	4
<b>BLY89C</b>	VHB25-12S		4
<b>BLY90</b>	<i>Consult Factory</i>		na
<b>BLY91C</b>	VHB10-28S		4
<b>BLY92A</b>	VHB10-28S		4
<b>BLY92C</b>	VHB10-28S		4
<b>BLY93A</b>		VHB25-28S	4
<b>BLY93C</b>	VHB25-28S		4
<b>BLY94</b>	<i>Consult Factory</i>		na
<b>BLV98CE</b>	CBSL15		7
<b>BLV99</b>	CBSL2SS		7
<b>BLV99/SL</b>	<i>Consult Factory</i>		na
<b>BLV100</b>		CBSL6	7
<b>BLV103</b>		CBSL6	7
<b>BLV193</b>		CBSL15	7
<b>BLV194</b>	CBSL15		7
<b>BLV945A</b>	CBSL30B		7
<b>BLV945B</b>	CBSL30B		7

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Part Number	ASI Exact Replacement	ASI Similar Device	Pg #
<b>AM1011-070</b>	<i>Consult Factory</i>		na
<b>AM1011-075</b>	<i>Consult Factory</i>		na
<b>AM1011-300</b>	<i>Consult Factory</i>		na
<b>AM1011-400</b>	<i>Consult Factory</i>		na
<b>AM1011-500</b>	<i>Consult Factory</i>		na
<b>AM1214-100</b>	ALR100		11
<b>AM1214-200</b>	ALR200		11
<b>AM1214-325</b>	ALR325		11
<b>AM80912-005</b>	AJT006		10
<b>AM80912-015</b>	AJT015		10
<b>AM80912-030</b>	AJT030		10
<b>AM80912-085</b>	AJT085		10
<b>AM80912-150</b>	AJT150		10
<b>AM81214-006</b>	ALR006		11
<b>AM81214-015</b>	ALR015		11
<b>AM81214-030</b>	ALR030		11
<b>AM81214-060</b>	ALR060		11
<b>MSC1000M</b>	<i>Consult Factory</i>		na
<b>MSC1000MP</b>	AVD0.5P		9
<b>MSC1004M</b>	AVD002F		9
<b>MSC1004MP</b>	AVD002P		9
<b>MSC1035M</b>	AVD035F		9
<b>MSC1035MP</b>	AVD035P		9
<b>MSC80185</b>		MLN2027SS	13
<b>MSC80186</b>		MLN2027SS	13
<b>MSC80195</b>	MLN2027F		13
<b>MSC80196</b>	MLN2030F		13
<b>MSC80197</b>	MLN2033F		13
<b>MSC81020</b>	ASI1020		12
<b>MSC81058</b>	ASI1010		12
<b>MSC81111</b>	ASI1005		12
<b>MSC81118</b>	ASI1002		12
<b>MSC81250M</b>	AVD250		9
<b>MSC81325M</b>	AVD350		9
<b>MSC81350M</b>	AVF350		10
<b>MSC81400M</b>	AVD400		9
<b>MSC81402</b>		ASI2302	12
<b>MSC81450M</b>	AVF450		10
<b>MSC82001</b>	ASI2001		12
<b>MSC82003</b>	ASI2003		12

Part Number	ASI Exact Replacement	ASI Similar Device	Pg #
<b>MSC82005</b>	ASI2005		12
<b>MSC82010</b>	ASI2010		12
<b>MSC82040</b>		MLN1027SS	13
<b>MSC82100</b>	MLN1027F		13
<b>MSC82302</b>	ASI2302		12
<b>MSC82304</b>	ASI2304		12
<b>MSC82306</b>		ASI2307	12
<b>MSC82307</b>	ASI2307		12
<b>MSC83301</b>	ASI3001		12
<b>MSC83303</b>	ASI3003		12
<b>MSC83305</b>	ASI3005		12
<b>SD1134</b>	ULBM2		6
<b>SD1135</b>	ULBM5		6
<b>SD1135-03</b>	ULBM5SL		6
<b>SD1274</b>	VHB25-12S		4
<b>SD1274-01</b>	VHB25-12F		4
<b>SD1275</b>	VHB40-12S		4
<b>SD1275-01</b>	VHB40-12F		4
<b>SD1398</b>	CBSL6		7
<b>SD1405</b>	HF75-12		1
<b>SD1407</b>	HF100-28		1
<b>SD1411</b>	<i>Consult Factory</i>		na
<b>SD1414</b>	UHBM45		6
<b>SD1423</b>	CBSL15		7
<b>SD1424</b>	CBSL30B		7
<b>SD1433</b>	ULBM10		6
<b>SD1434</b>	ULBM45		6
<b>SD1446</b>	VLB70-12F		3
<b>SD1448</b>	TVU004		15
<b>SD1455</b>	TVV020		14
<b>SD1456</b>	TVV100		14
<b>SD1457</b>	FMB075		14
<b>SD1458</b>	TVV014A		14
<b>SD1459</b>	TVV030		14
<b>SD1460</b>	FMB150		14
<b>SD1463</b>	UML125B		8
<b>SD1470</b>	UML100		8
<b>SD1476</b>	<i>Consult Factory</i>		na
<b>SD1477</b>	VHB100-12		4
<b>SD1480</b>	VHB125-28		4

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Part Number	ASI Exact Replacement	ASI Similar Device	Pg #
SD1487	HF100-12		1
SD1488	ULBM35		6
SD1489	TVU025		15
SD1490	TVU025		15
SD1492	TVU150A		15
SD1528-06	AVD015P		9
SD1528-08		AVD015F	9
SD1530-01	AVD035P		9
SD1530-08		AVD035F	9
SD1534-01	AVD075P		9
SD1534-08		AVD075F	9
SD1538-02		AVD150	9
SD1538-08		AVD150	9
SD1540		AVD350	9
SD1540-08		AVD350	9
SD1541-01	AVD400		9
SD1541-09	AVF450		10
SD1542	AVD550		9
SD1542-04	AVF600		10
SD1542-42	Consult Factory		na
SD1563	AUR300		11
SD1565	AUR500		11
SD1650	Consult Factory		na
SD1660	Consult Factory		na
SD1680	Consult Factory		na
SD1726	HF150-50F		2
SD1727	HF150-50S		2
SD1728	HF250-50		2
SD1729		HF100-28	1
SD1730	HF220-28		1
SD1731	HF220-50		2
SD1732	TVU014		15
SD1733	HF75-50S		2
SD1855	Consult Factory		na
SD1888-03	ASAT25		12
SD1891-03		ASI4003	12
SD1893-03		ASI2010	12
SD1894		ASAT10	12
SD1895-03	ASAT15		12
SD1897	ASAT10		12

Part Number	ASI Exact Replacement	ASI Similar Device	Pg #
SD1899	ASAT30		12
SD2900	UFT5-28SL		5
SD2902	UFT15-28		5
SD2904	UFT30-28		5
SD2921	VFT150-50		5
SD2922	VFT300-50		5
SD4010	TVU020		15
SD4010-03		TVU020	15
SD4011	TVU004		15
SD4013	UML25F		8
SD4017	CBLS30		7
SD4100	TVU100		15
SD4200	TVU150		15
SD4590	CBLS150		7
SD4600	CBLS60B		7
SD5000	MLN1033S		13

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- *SILICON SMALL SIGNAL BIPOLAR & FET*
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