



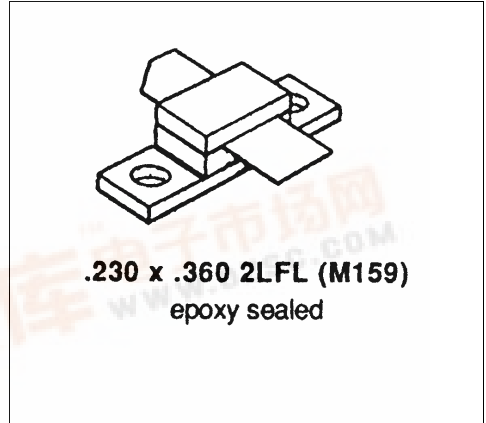
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**MS2284**

**RF & MICROWAVE TRANSISTORS  
AVIONICS APPLICATION**

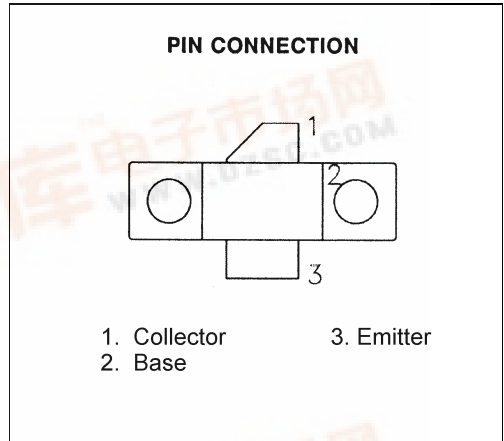
**Features**

- 60 W (MIN) POWER OUTPUT @1030 MHz
- 10 dB GAIN
- LOW THERMAL RESISTANCE
- BALLASTED GEOMETRY
- INPUT MATCHED
- VSWR 20:1 CAPABILITY @ RATED CONDITIONS
- COMMON BASE CONFIGURATION



**DESCRIPTION:**

THE MS2284 IS DESIGNED FOR 1030/1090 MHz IFF APPLICATIONS. THE MS2284 CAN BE OPERATED AT DUTY CYCLES UP TO 10% WITH MINIMAL DERATING OF POWER OUTPUT (40W TYPICAL).



**ABSOLUTE MAXIMUM RATINGS (Tcase = 25°C)**

Symbol	Parameter	Value	Unit
P <sub>DISS</sub>	Power Dissipation*	140	W
I <sub>C</sub>	Device Current *	3	A
V <sub>CC</sub>	Collector Supply Voltage*	55	V
T <sub>J</sub>	Junction Temperature	200	°C
T <sub>STG</sub>	Storage Temperature	-65 to +150	°C

\* Operating Conditions

**Thermal Data**

R <sub>TH(J-C)</sub>	Junction - Case Thermal Resistance	0.7	°C/W
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**ELECTRICAL SPECIFICATIONS (Tcase = 25°C)**

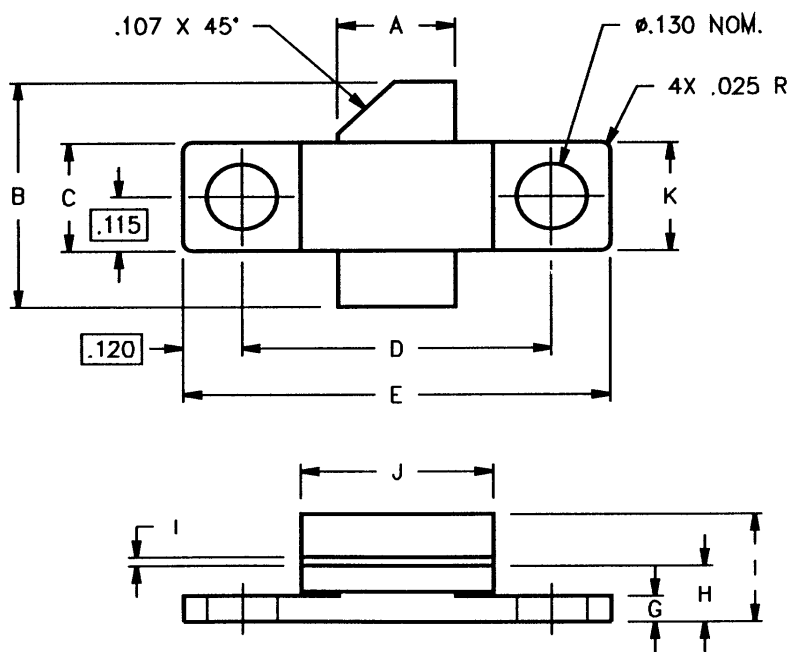
**STATIC**

Symbol	Test Conditions	Value			Unit
		Min.	Typ.	Max.	
Bvebo	I <sub>C</sub> = 1 mA	3.5	---	---	V
Bvcbo	I <sub>C</sub> = 10 mA	65	---	---	V
Ices	V <sub>CE</sub> = 50 mA	---	---	2	mA
HFE	V <sub>CE</sub> = 5.0 V      I <sub>C</sub> =1 A	20	---	120	B

**DYNAMIC**

Symbol	Test Conditions	Value			Unit
		Min.	Typ.	Max.	
P <sub>out</sub>	f=1030 MHz      P <sub>in</sub> =6.0W      V <sub>CC</sub> =50V	60	---	---	W
η <sub>c</sub>	f=1030 MHz      P <sub>in</sub> =6.0W      V <sub>CC</sub> =50V	35	---	---	%
G <sub>p</sub>	f=1030 MHz      P <sub>in</sub> =6.0W      V <sub>CC</sub> =50V	10	---	---	dB
Conditions	Pulse width=10μsec, Duty Cycle= 1%				

**PACKAGE MECHANICAL DATA**



	MINIMUM INCHES/MM	MAXIMUM INCHES/MM		MINIMUM INCHES/MM	MAXIMUM INCHES/MM
A	.210/5,33	.220/5,51	I		.240/6,10
B	.670/17,02	.730/18,54	J	.355/9,02	.365/9,27
C	.225/5,72	.235/5,97	K	.225/5,72	.235/5,97
D	.555/14,10	.565/14,35			
E	.795/20,19	.805/20,45			
F	.003/0,08	.007/0,18			
G	.039/1,00	.050/1,27			
H	.120/3,05	.135/3,43			