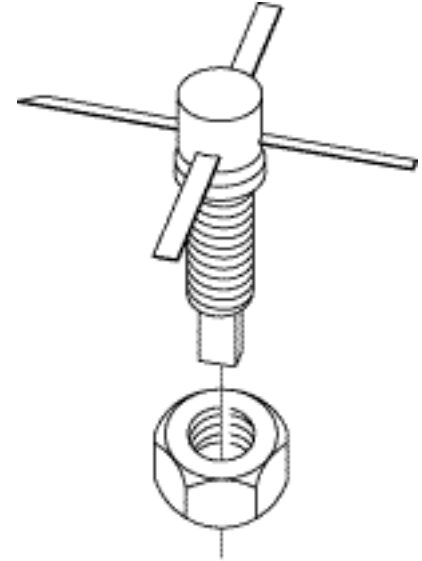


SILICON MICROWAVE POWER TRANSISTOR

PRODUCT DATA SHEET



FEATURES:

- Common Base Package Configuration
- High Output Power
2 W @ 1.0 GHz
- High Gain Bandwidth Product
 $f_t = 6.0 \text{ GHz @ } I_C = 200 \text{ mA}$
- High Gain
 $G_{PE} = 9.5 \text{ dB @ 1.0 GHz}$
- High Reliability
Gold Metallization
Nitride Passivation
- Diffused Ballast Resistors
- BeO Packaging

PERFORMANCE DATA:

- Electrical Characteristics ($T_A = 25^\circ\text{C}$)

Absolute Maximum Ratings:

SYMBOL	PARAMETERS	RATING	UNITS
V_{CBO}	Collector-Base Voltage	40	V
V_{CEO}	Collector-Emitter Voltage	20	V
V_{EBO}	Emitter-Base Voltage	3.0	V
I_C	Collector Current (instantaneous)	320	mA
T_J	Junction Temperature	200	$^\circ\text{C}$
T_{STG}	Storage Temperature	-65 to 200	$^\circ\text{C}$

θ_{JC}	Thermal Resistance	50	C/W
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SYMBOL	PARAMETERS & CONDITIONS $V_{CE} = 15\text{V}, I_C = 200 \text{ mA}, \text{Class C}$	UNIT	MIN.	TYP.	MAX.
P_{1dB}	Power output at 1 dB compression: $f = 1.0 \text{ GHz}$	W		2	
η	Collector Efficiency Class C	%		65	
h_{FE}	Forward Current Transfer Ratio: $V_{CB} = 8\text{V}, I_C = 100 \text{ mA}$		20	60	100
C_{OB}	Output Capacitance: $f = 1 \text{ MHz}, I_E = 0$	pF		2.0	
P_T	Total Power Dissipation	W		3	