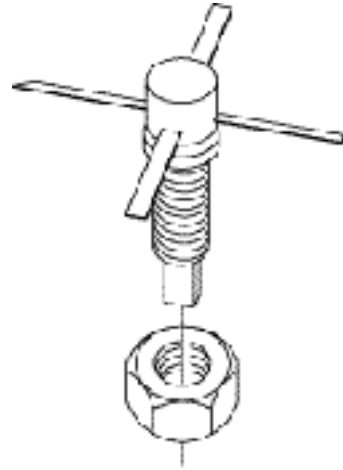


SILICON MICROWAVE POWER TRANSISTOR

PRODUCT DATA SHEET



FEATURES:

- Common Base Package Configuration
- High Output Power
2 W @ 1.0 GHz
- High Gain Bandwidth Product
 $f_t = 8.0 \text{ GHz @ } I_C = 140 \text{ mA}$
- High Gain
 $G_{PE} = 11.5 \text{ dB @ } 1.0 \text{ GHz}$
- High Reliability
Gold Metallization
Nitride Passivation
- Diffused Ballast Resistors
- Stud Mount Package (package 28S)

PERFORMANCE DATA:

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

Absolute Maximum Ratings:

SYMBOL	PARAMETERS	RATING	UNITS
V_{CBO}	Collector-Base Voltage	25	V
V_{CEO}	Collector-Emitter Voltage	15	V
V_{EBO}	Emitter-Base Voltage	1.5	V
I_C	Collector Current (continuous)	240	mA
I_C	Collector Current (instantaneous)	360	mA
P_T	Power Dissipation	6	W
T_J	Junction Temperature	200	$^\circ\text{C}$
T_{STG}	Storage Temperature	-65 to 200	$^\circ\text{C}$

θ_{JC}	Thermal Resistance	45	C/W
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SYMBOL	PARAMETERS & CONDITIONS $V_{CE} = 8V, I_C = 120 \text{ mA}, \text{Class C}$	UNIT	MIN.	TYP.	MAX.
P_{1dB}	Power output at 1 dB compression: $f = 1.0 \text{ GHz}$	W		4	
η	Collector Efficiency Class C	%		65	
h_{FE}	Forward Current Transfer Ratio: $V_{CB} = 5V, I_C = 30 \text{ mA}$		30	100	300
I_{CBO}	Collector Cutoff Current: $V_{CB} = 8V$	μA			0.8
C_{CB}	Capacitance Base Capacitance: $V_{CB} = 8V, f = 1 \text{ MHz}$	pF		1.5	