

Part Number SD1546-1

SILICON MIRCROWAVE POWER TRANSISTOR

PRODUCT DATA SHEET

FEATURES:

High Output Power
60 W @ 1.0 GHz

High Gain Bandwidth Product
 $f_t = 6.0 \text{ GHz @ } I_c = 1.0 \text{ A}$

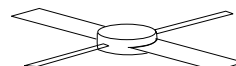
High Gain

$G_{PE} = 7.5 \text{ dB @ } 1.0 \text{ GHz}$

High Reliability Gold Metallization
Nitride Passivation

Diffused Ballast Resistors

Common Base Pin Configuration



Absolute Maximum Ratings

SYMBOL	PARAMETERS	RATING	UNITS
V _{CB0}	Collector-Base Voltage	60	V
V _{CEO}	Collector-Emitter Voltage	30	V
V _{EBO}	Emitter-Base Voltage	3.0	V
I _c	Collector Current	6.0	A
T _J	Junction Temperature	200	°C
T _{STG}	Storage Temperature	-65 to 200	°C
θ _{JC}	Thermal Resistance	9	°C /W

PERFORMANCE DATA:

Electrical Characteristics (T_A = 25°C)

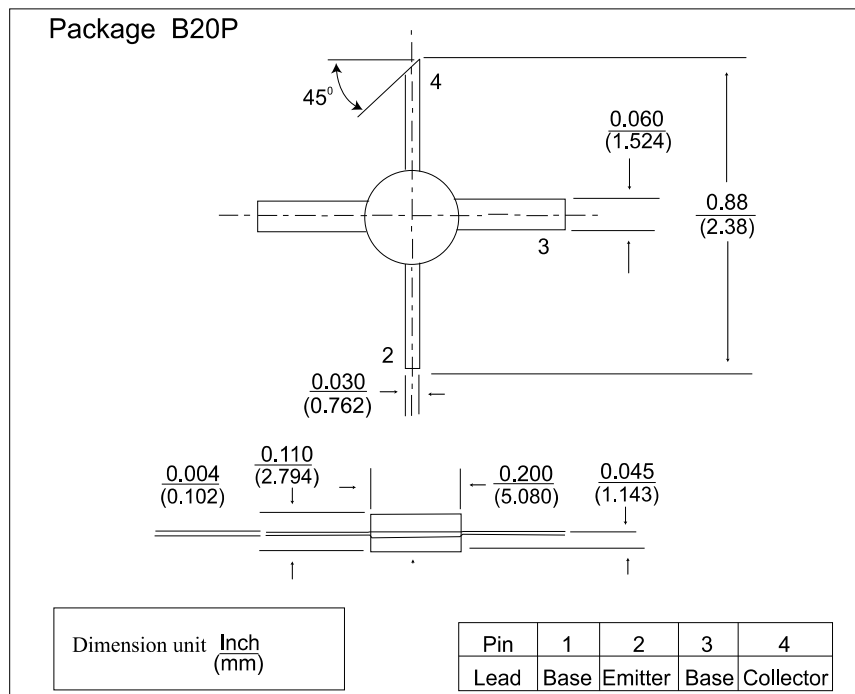
SYMBOL	PARAMETERS	CONDITIONS	UNIT	MIN.	TYP.	MAX.
P _{1dB}	Power output at 1 dB compression	f = 1.0 GHz	W		60	
η	Collector Efficiency	Class C	%		50	
h _{FE}	Forward Current Transfer Ratio	V _{CB} = 28 V, I _c = 4.0 A		20	60	100
C _{CB}	Output Capacitance:	f = 1 MHz, I _E = 0	pF		60	
P _T	Total Power Dissipation	V _{CB} = 28V, I _c = 4.0 A	W		120	

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PACKAGE OUTLINE



MARKING / LEAD CONFIGURATION

