

SILICON NPN MICROWAVE POWER TRANSISTOR 5 W, up to 225 MHz

The silicon n-p-n transistor is designed for Class A High Linearity Amplifier Applications in TV Band II-III Transmitters.

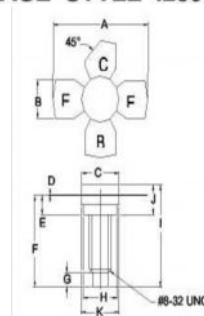
Features:

- Power Gain: 14 dB Min
- Output Power: 5 W
- IMD₃: -60 dBc Max

Absolute Maximum Ratings

Parameters	Sym	Value	Unit
Collector–Emitter Voltage	V _{CEO}	28	V _{DC}
Collector–Emitter Voltage	V _{CER}	45	V _{DC}
Collector Current	I _C	4	A _{DC}
Operation Junction Temperature	T _J	-55 ÷ +200	°C
Storage Temperature Range	T _{STG}	-55 ÷ +150	°C
Thermal Resistance, Junction to Case	R _{θJC}	3.5	°C/W
Total Power Dissipation, T _C = 25°C	P _D	50	W

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	.265 / 6.48
I		.040 / 10.26
J	.175 / 4.45	.217 / 5.51
K	.275 / 6.99	.285 / 7.24

Parameters

Parameter	Symbol	Min.	Typ.	Max.	Unit
Collector–Emitter Breakdown Voltage (I _C = 40 mA, V _{BE} = 0 V)	V _{(BR)CEO}	28	—	—	V _{DC}
Collector–Emitter Breakdown Voltage (I _C = 10 mA, R _{BE} = 10 Ω)	V _{(BR)CER}	45	—	—	V _{DC}
Emitter–Base Breakdown Voltage (I _E = 5 mA, I _C = 0 A)	V _{(BR)EBO}	4	—	—	V _{DC}
Collector–Base Leakage Current (V _{CB} = 20 V)	I _{CBO}	—	—	3	mA
DC Current Gain (V _{CE} = 5 V, I _C = 1000 mA)	h _{FE}	10	—	100	
Output Capacitance (V _{CB} = 28 V, I _E = 0 A, f = 1 MHz)	C _{OB}	—	34	—	pF
Power Gain (V _{CE} = 28 V, I _C = 1000 mA, f = 225 MHz, P _{OUT} = 5 W)	G _p	14	—	—	dB
Two-Tone Third-Order Intermodulation Distortion (V _{CE} = 28 V, I _C = 1000 mA, f = 225 MHz, P _{OUT} = 5 W)	IMD ₃	—	—	-60	dBc

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Specification is subject to change without notice