

Features

- · High Power Gain
- · Low Noise Figure
- High Cut-off Frequency
- RF Wideband Amplifiers and Oscillators.
- · Halogen Free. "Green" Device (Note 1)
- · Moisture Sensitivity Level 1
- Epoxy Meets UL 94 V-0 Flammability Rating
- Lead Free Finish/RoHS Compliant ("P" Suffix Designates RoHS Compliant. See Ordering Information)

Maximum Ratings @ 25°C Unless Otherwise Specified

- Operating Junction Temperature Range: -55°C to +150°C
- Storage Temperature Range: -55°C to +150°C
- Thermal Resistance: 833°C/W Junction to Ambient

Parameter	Symbol	Rating	Unit
Collector-Base Voltage	V_{CBO}	20	V
Collector-Emitter Voltage	V_{CEO}	12	V
Emitter-Base Voltage	V _{EBO}	3	V
Collector Current	I _C	100	mA
Power Dissipation	P _D	150	mW

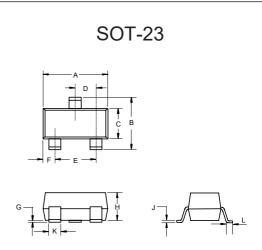
Note: 1. Halogen free "Green" products are defined as those which contain <900ppm bromine, <900ppm chlorine (<1500ppm total Br + Cl) and <1000ppm antimony compounds.

Internal Structure



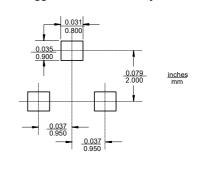
Marking: R25

NPN RF Transistor



DIMENSIONS					
DIM INCHES		MM		NOTE	
DIIVI	MIN	MAX	MIN	MAX	NOTE
Α	0.110	0.120	2.80	3.04	
В	0.083	0.104	2.10	2.64	
С	0.047	0.055	1.20	1.40	
D	0.034	0.041	0.85	1.05	
E	0.067	0.083	1.70	2.10	
F	0.018	0.024	0.45	0.60	
G	0.0004	0.006	0.01	0.15	
Н	0.035	0.043	0.90	1.10	
J	0.003	0.007	0.08	0.18	
K	0.014	0.020	0.35	0.51	
L	0.007	0.020	0.20	0.50	

Suggested Solder Pad Layout





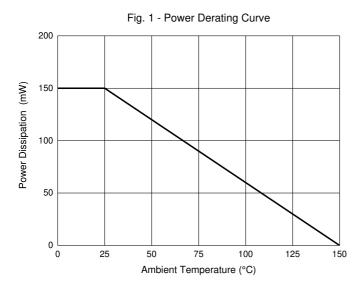
Electrical Characteristics @ T_A =25°C Unless Otherwise Specified

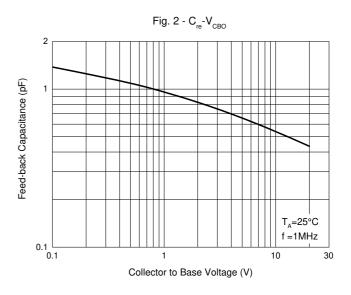
Parameter	Symbol	Min	Тур	Max	Units	Conditions
Collector-Base Cutoff Current	I _{CBO}			1	μA	V_{CB} =20V, I_E =0
Emitter-Base Cutoff Current	I _{EBO}			1	μA	V_{EB} =3 V , I_{C} =0
DC Current Gain*	h _{FE}	130		300		V _{CE} =10V, I _C =20mA
Transition Frequency	f _T		7		GHz	V _{CE} =10V, I _C =20mA
Power Gain	Gp		12.5		dB	V _{CE} =10V, I _C =20mA, f=1GHz
Noise Figure	N _F		1.1	2.0	dB	V _{CE} =10V, I _C =10mA, f=1GHz

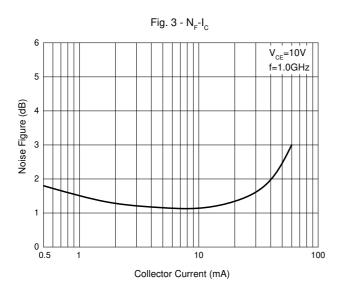
^{*}Pulse Width ≤ 380µs, Duty Cycle≤2.0%

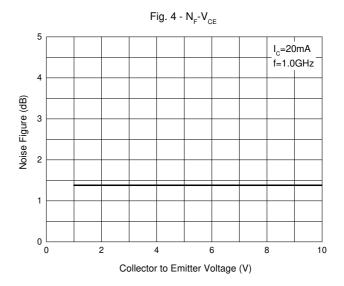


Curve Characteristics











Ordering Information

Device	Packing
Part Number-TP	Tape&Reel: 3Kpcs/Reel

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