HG Semiconductors

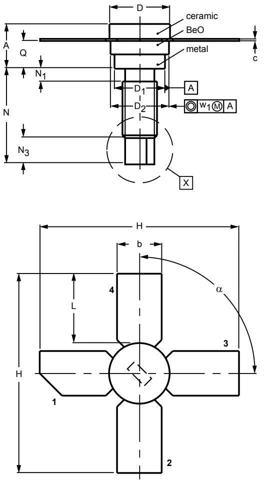
HG RF POWER TRANSISTOR

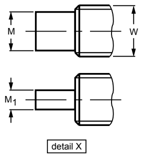
MRF323

ROHS Compliance,Silicon NPN POWER TRANSISTOR

DESCRIPTION

Designed primarily for wideband large–signal driver and predriver amplifier stages in 200–500 MHz frequency range.





1.Collector
2.EMITTER
3.BASE
4.EMITTER

FEATURES

- Specified 28V, 400MHz Characteristi
- P_O = 20W PEP
- G_P = 10 dB min. at 20 W/400 MHz
- Omnigold™ Metalization System

DIMENSIONS

NOTE: ALL ELECTRODES ARE ISOLATED FROM FLANCE.

UNIT	A	b	c	D	D_1	D_2	H	L	M_1	M	N	N_1 max.	N_3	Q	W	w_1	α
mm	5.97 4.74	5.85 5.58	0.18 0.14	7.50 7.23	6.48 6.22	7.24 6.93	27.56 25.78	9.91 9.14	3.18 2.66	1.66 1.39	11.82 11.04	1.02	3.86 2.92	3.38 2.74	8-32 UNC	0.381	90°

MAXIMUM RATINGS

CHARACTERISTICS	SYMBOL	RATINGS	UNITS
Collector-Base Voltage	V_{CBO}	60	V
Collector-Emitter Voltage	V_{CES}	60	V
Collector-Emitter Voltage	V_{CEO}	35	V
Collector Current	I_C	2.2	A
Emitter-Base Voltage	V_{EBO}	4	V
Collector Power Dissipation	P_{DISS}	55	W
Junction Temperature	T_J	-65 to 175	°C
Storage Temperature Range	T_{STG}	-65 to 175	°C

ELECTRICAL CHARACTERISTICS

CHARACTERISTICS	SYMBOL	TEST CONDITIONS	MIN.	TYP.	MAX.	UNITS
Collector-Emitter Breakdown Voltage	$V_{(BR)CEO}$	I_C=20mA,I_B=0	35	-	-	V
Collector-Emitter Breakdown Voltage	$V_{(BR)CES}$	I_C=20mA,V_{EB}=0	60	-	-	V
Emitter-Base Breakdown Voltage	$V_{(BR)EBO}$	I_E=2mA,I_C=0	4	-	-	V
Collector Cutoff Current	I_{CBO}	(V_{CB} = 30 V, I_E = 0)			0.5	mA
DC Current Gain	h_{FE}	V_{CE}=5V,I_C=0.5A	20	-	100	
Collector Output Capacitance	C_{Ob}	V_{CB}=28V,I_E=0 f=1MHz	-	20	24	pF
Power Gain	G_P	V_{CC}=28V,P_{OUT}=20W	10.0	11.0	-	dB
Collector Efficiency	η_C	Iidle=100mA,f=400M	50.0	60.0		%

Note : Above parameters , ratings , limits and conditions are subject to change.