HG Semiconductors

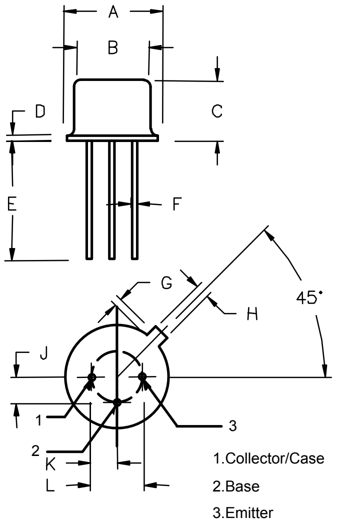
HG RF POWER TRANSISTOR

MRF586

ROHS Compliance,Silicon NPN POWER TRANSISTOR

DESCRIPTION

A silicon NPN transistor, designed for VHF and UHF equipment. Applications include amplifier,pre-driver, driver, and output stages.



1.Collector/Case
2.Base
3.Emitter

FEATURES

- Silicon NPN, TO-39 packaged VHF/UHF Transistor
- F_t=3.0 Ghz (typ) @ 300MHz, 14v, 90mA
- $G_{U\,max}$=12.5dB (typ) @ 300 MHz, 15v, 40mA

DIMENSIONS

UNIT	A	B	C	D	E	F	G	H	J	K	L
mm	9.40	8.51	6.60	1.14	12.70	0.48	1.02	0.86	2.67	2.67	5.33
	8.89	8.00	6.10	0.38		0.41	0.74	0.71	2.41	2.41	4.83
inches	0.370	0.335	0.260	0.045	0.500	0.019	0.040	0.034	0.105	0.105	0.210
	0.350	0.315	0.240	0.015		0.016	0.029	0.028	0.095	0.095	0.190

MAXIMUM RATINGS

CHARACTERISTICS	SYMBOL	RATINGS	UNITS
Collector-Base Voltage	V_{CBO}	35	V
Collector-Emitter Voltage	V_{CEO}	20	V
Collector Current	I_C	200	mA
Emitter-Base Voltage	V_{EBO}	3	V
Collector Power Dissipation	P_{DISS}	1	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=5mA,I_B=0	20	-	-	V
Collector-Base Breakdown Voltage	$V_{(BR)CBO}$	I_C=1mA,V_{EB}=0	35	-	-	V
Emitter-Base Breakdown Voltage	$V_{(BR)EBO}$	I_E=0.1mA,I_C=0	3	-	-	V
Collector Cutoff Current	I_{CBO}	V_{CB}=10V, I_E=0	-	50	-	uA
DC Current Gain	h_{FE}	V_{CE}=5V,I_C=50mA	20	-	200	
Current-Gain Bandwidth Product	f_T	f=300MHz,I_C=90mA V_{CE}=14V	-	3	-	GHz
Output Capacitance	C_{OB}	f=1.0MHz,V_{CB}=10V	-	3.5	-	pf
Maximum Unilateral Gain(1)	$G_{U\,max}$	I_C=40mA,V_{CE}=15V f=300 MHz	-	12.5	-	dB

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