HG Semiconductors

HG RF POWER TRANSISTOR

MRF492

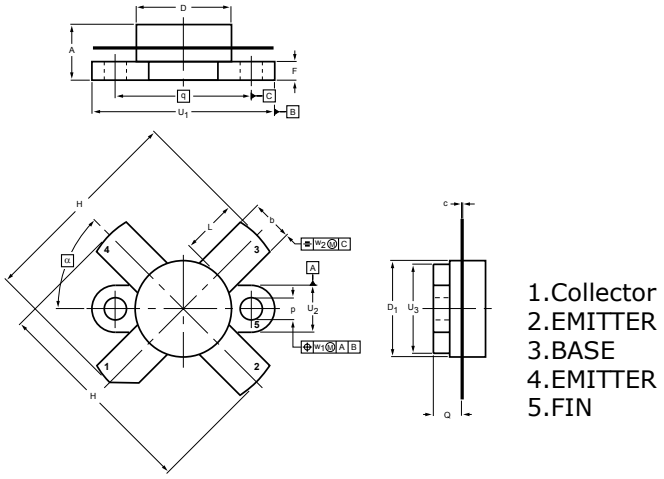
ROHS Compliance,Silicon NPN POWER TRANSISTOR

DESCRIPTION

Designed for 12.5 volt low band VHF large–signal power amplifier applications
in commercial and industrial FM equipment.

FEATURES

- Specified 12V, 50MHz Characteristics
- P_O = 70W
- G_P = 12 dB min. at 70 W/50 MHz



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

DIMENSIONS

NOTE: ALL ELECTRODES ARE ISOLATED FROM FLANCE.

UNIT	A	b	c	D	D_1	F	H	L	p	Q	q	U_1	U_2	U_3	w_1	w_2	α
mm	7.27 6.17	5.82 5.56	0.16 0.10	12.86 12.59	12.83 12.57	2.67 2.41	28.45 25.52	7.93 6.32	3.30 3.05	4.45 3.91	18.42	24.90 24.63	6.48 6.22	12.32 12.06	0.51	1.02	45°
inches	0.286 0.243	0.229 0.219	0.006 0.004	0.506 0.496	0.505 0.495	0.105 0.095	1.120 1.005	0.312 0.249	0.130 0.120	0.175 0.154	0.725	0.98 0.97	0.255 0.245	0.485 0.475	0.02	0.04	

MAXIMUM RATINGS

CHARACTERISTICS	SYMBOL	RATINGS	UNITS
Collector-Base Voltage	V_{CBO}	50	V
Collector-Emitter Voltage	V_{CES}	50	V
Collector-Emitter Voltage	V_{CEO}	18	V
Collector Current	I_C	20	A
Emitter-Base Voltage	V_{EBO}	4	V
Collector Power Dissipation	P_{DISS}	250	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=100mA,I_B=0	18	-	-	V
Collector-Emitter Breakdown Voltage	$V_{(BR)CES}$	I_C=50mA,V_{EB}=0	50	-	-	V
Emitter-Base Breakdown Voltage	$V_{(BR)EBO}$	I_E=10mA,I_C=0	4	-	-	V
Collector Cutoff Current	I_{CES}	V_{CB} = 13.6V, I_E = 0			20	mA
DC Current Gain	h_{FE}	V_{CE}=5V,I_C=5A	10	50	150	
Power Gain	G_P	V_{CC}=12.5V,P_{OUT}=70W, f=50MHz	11	13	-	dB
Collector Efficiency	η_C		50		-	%

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