HG Semiconductors

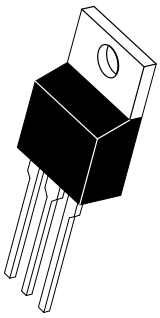
HG RF POWER TRANSISTOR

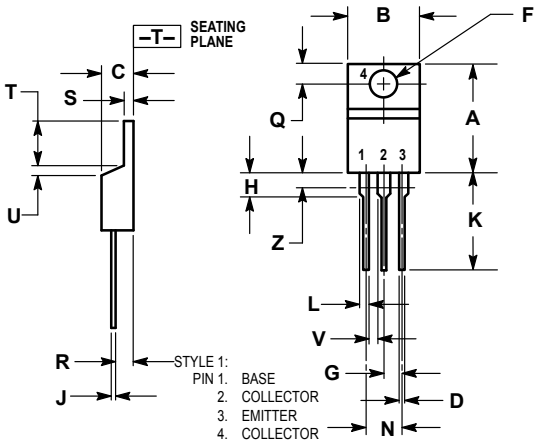
MRF485

ROHS Compliance,Silicon NPN POWER TRANSISTOR

DESCRIPTION

Designed primarily for SSB and Large-Signal amplifier applications





FEATURES

- Specified 28V, 30MHz Characteristics
- P_O = 15W PEP
- G_P = 13 Typ. at 15 W/30 MHz
- IMD3 = -30 dBc max. (PEP)

DIMENSIONS

UNIT	A	B	C	D	F	G	H	J	K	L	N	Q	R	S	T	U	V	Z
mm	15.75	10.28	4.82	0.88	3.73	2.66	3.93	0.64	14.27	1.52	5.33	3.04	2.79	1.39	6.47	1.27	--	2.04
	14.48	9.66	4.07	0.64	3.61	2.42	2.8	0.46	12.70	1.15	4.83	2.54	2.04	1.15	5.97	0.00	1.15	--
inches	0.620	0.405	0.19	0.035	0.147	0.105	0.155	0.025	0.562	0.060	0.210	0.12	0.11	0.055	0.255	0.05	--	0.08
	0.570	0.380	0.16	0.025	0.142	0.095	0.110	0.018	0.500	0.045	0.190	0.10	0.08	0.045	0.235	0.00	0.045	--

MAXIMUM RATINGS

CHARACTERISTICS	SYMBOL	RATINGS	UNITS
Collector-Base Voltage	V_{CBO}	65	V
Collector-Emitter Voltage	V_{CES}	60	V
Collector-Emitter Voltage	V_{CEO}	35	V
Collector Current	I_C	10	A
Emitter-Base Voltage	V_{EBO}	4	V
Collector Power Dissipation	P_{DISS}	30	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=50mA,V_{BE}=0	60	-	-	V
Emitter-Base Breakdown Voltage	$V_{(BR)EBO}$	I_E=5mA,I_C=0	4	-	-	V
DC Current Gain	h_{FE}	V_{CE}=5V,I_C=0.5A	10	30	-	
Collector Output Capacitance	C_{Ob}	V_{CB}=28V,I_E=0 f=10MHz	-	85	100	pF
Power Gain	G_P	V_{CC}=28V,P_{OUT}=15W I_{CQ}=20mA,f=30MHz	10	13		dB
Collector Efficiency	η_C		40	-	-	%
Intermodulation Distortion	IMD3		-	-35	-30	dBc
Series Equivalent Input Impedance	Z_{IN}	V_{CC}=28V P_{OUT}=15W f=30MHz	-	27 – j1.5	-	Ω
Series Equivalent Output Impedance	Z_{OUT}		-	50	-	Ω

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