HG Semiconductors

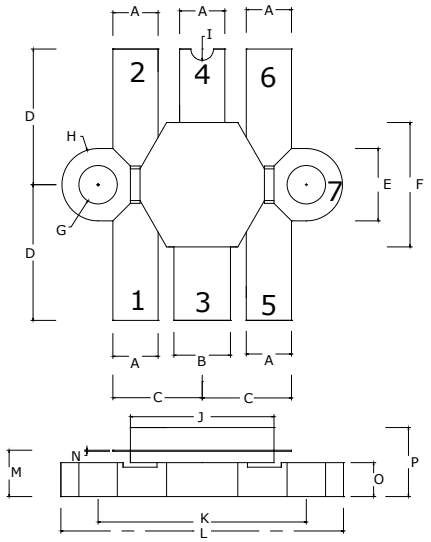
HG RF POWER TRANSISTOR

2SC2904

ROHS Compliance,Silicon NPN POWER TRANSISTOR

DESCRIPTION

2SC2904 is a silicon NPN epitaxial planar type transistor specifically designed for high power amplifiers applications in HF band.Output stage of transmitter in HF band SSB mobile radio sets.



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

FEATURES

- Specified 12.5V, 30MHz Characteristics
- P_O = 100W PEP
- G_P ⩾ 11.5dB. at 100 W/30 MHz
- Omnigold™ Metalization System

DIMENSIONS

UNIT	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P
mm	4.3	5.3	8.3	12.4	7.0	11.3	R-1.6	R-3.2	R-1	12.9	18.8	25.6	4.5	0.16	3.5	6.8
	3.7	4.7	7.5	11.6	5.8	10.7				12.5	18.2	24.4	3.5	0.07	2.9	5.4

MAXIMUM RATINGS

CHARACTERISTICS	SYMBOL	RATINGS	UNITS
Collector-Base Voltage	V_{CBO}	50	V
Collector-Emitter Voltage	V_{CEO}	20	V
Collector Current	I_C	22	A
Emitter-Base Voltage	V_{EBO}	5	V
Collector Power Dissipation	P_{DISS}	200	W
Junction Temperature	T_J	175	°C
Storage Temperature Range	T_{STG}	-55 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	20	-	-	V
Collector-Base Breakdown Voltage	$V_{(BR)CBO}$	I_C=20mA,I_E=0	50	-	-	V
Emitter-Base Breakdown Voltage	$V_{(BR)EBO}$	I_E=20mA,I_C=0	5	-	-	V
Collector cutoff current	I_{CBO}	V_{CB}=15V,I_E=0	-	-	5.0	mA
Emitter cutoff current	I_{EBO}	V_{EB}=3V,I_C=0	-	-	5.0	mA
DC Current Gain	h_{FE}	V_{CE}=10V,I_C=1A	10	50	180	
Power Gain	G_P	V_{CC}=12.5V,P_O=100W,f=30MHz	11.5		-	dB
Output Power	P_O	V_{CC}=12.5V,P_{in}=7W	100	110		W
Collector Efficiency	η_C	f=30MHz	55	60		%

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