HG Semiconductors

HG RF POWER TRANSISTOR

2sc2782

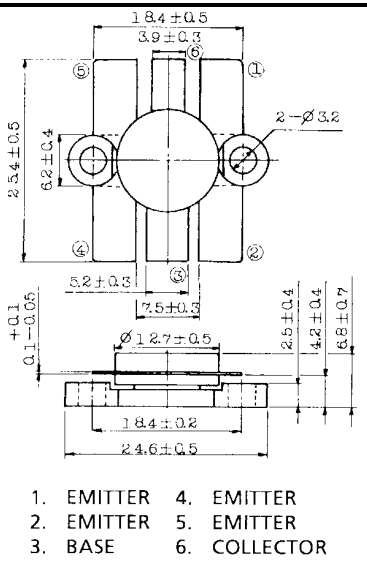
ROHS Compliance,Silicon NPN POWER TRANSISTOR

- Output Power : Po = 80W (Min.)
  (f = 175MHz, V_{CC} = 12.5V, Pi = 18W)

MAXIMUM RATINGS (Tc = 25°C)

CHARACTERISTIC	SYMBOL	ATRING	UNIT
Collector-Base Voltage	V_{CBO}	36	V
Collector-Emitter Voltage	V_{CEO}	16	V
Emitter-Base Voltage	V_{EBO}	4	V
Collector Current	I_C	20	A
Collector Power Dissipation	CP	220	W
Junction Temperature	T_j	175	° C
Storage Temperature Range	T_{stg}	65~175	° C

Unit in mm



JEDEC	—	
EIAJ	—	
TOSHIBA	2	C1A

Weight: 5.5g

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

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CHARACTERISTIC	SYMBOL	TEST CONDITION	MIN.	TYP.	MAX.	UNIT	
Collector-Base Breakdown Voltage	$V_{(BR)\ CBO}$	I_C = 20mA, I_E = 0		36	—	—	V
Collector-Emitter Breakdown Voltage	$V_{(BR)\ CEO}$	I_C = 50mA, I_B = 0		16	—	—	V
Emitter-Base Breakdown Voltage	$V_{(BR)\ EBO}$	I_E = 1mA, I_C = 0		4	—	—	V
DC CurrentGain	h_{FE}	V_{CE} = 5V, I_C = 10A *		10	—	—	
Collector Output Capacitance	Cbo	V_{CB} = 12.5V, I_E = 0 f = 1MHz		—	—	320	pF
OutputPower	P_o	(Fig.) V_{CC} = 12.5V, f = 175MHz Pi = 18W		80	90	—	W
PowerGain	G_p			6.4	6.8	—	dB
Collector Efficiency	$C\eta$			60	70	—	%
Series Equivalent Input Impedance	Z_{in}	V_{CC} = 12.5V f = 175MHz, Po = 80W		—	1.0 + 1.5	—	
Series Equivalent Output Impedance	Z_{out}			—	1.2 + 1.8	—	

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