HG Semiconductors

HG RF POWER TRANSISTOR

2SC2395

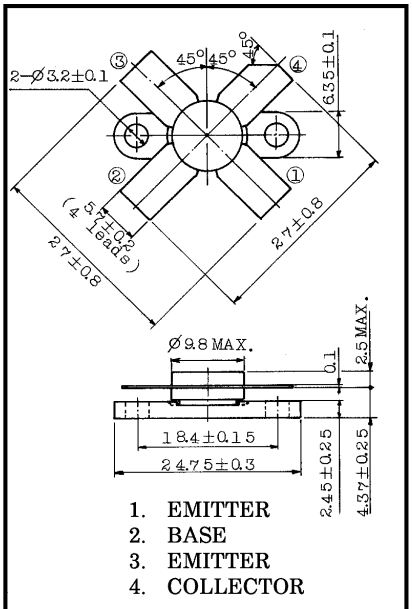
ROHS Compliance,Silicon NPN POWER TRANSISTOR

(LOW SUPPLY VOLTAGE USE)

- Specified 12.5V, 28MHz Characteristics
- Output Power : P_O=10W_{PEP} (Min.)
- Power Gain : G_p=17dB (Min.)
- Collector Efficiency : η_C=35% (Min.)
- Intermodulation Distortion : IMD=−30dB (Max.)

MAXIMUM RATINGS (Tc=25°C)

CHARACTERISTIC	SYMBOL	RATING	UNIT
Collector-Base Voltage	V_{CBO}	40	V
Collector-Emitter Voltage	V_{CES}	40	V
Collector-Emitter Voltage	V_{CEO}	18	V
Emitter-Base Voltage	V_{EBO}	4	V
Collector Current	I_C	5	A
Collector Power Dissipation	P_C	40	W
Junction Temperature	T_j	175	°C
Storage Temperature Range	T_{stg}	−65~175	°C



1. EMITTER
2. BASE
3. EMITTER
4. COLLECTOR

JEDEC	—
EIAJ	—
TOSHIBA	2-10H1A

Weight : 4.0g

ELECTRICAL CHARACTERISTICS (Tc=25°C)

CHARACTERISTIC	SYMBOL	TEST CONDITION	MIN.	TYP.	MAX.	UNIT
Collector-Emitter Breakdown Voltage	$V_{(BR)CEO}$	I_C=10mA, I_B=0	18	—	—	V
Collector-Emitter Breakdown Voltage	$V_{(BR)CES}$	I_C=50mA, V_{EB}=0	40	—	—	V
Emitter-Base Breakdown Voltage	$V_{(BR)EBO}$	I_E=1mA, I_C=0	4	—	—	V
DC Current Gain	h_{FE}	V_{CE}=5V, I_C=1A *	20	—	—	
Transition Frequency	f_T	V_{CE}=5V, I_C=1A	—	200	—	MHz
Collector Output Capacitance	C_{ob}	V_{CB}=12.5V, I_E=0 f=1MHz	—	—	150	pF
Power Gain	G_p	V_{CC}=12.5V, f_1=28.000 MHz, f_2=28.001MHz I_{idle}=50mA P_O=10W_{PEP}(Fig.)	17.0	—	—	dB
Input Power	Pi		—	—	0.2	W_{PEP}
Collector Efficiency	η_C		35	45	—	%
Intermodulation Distortion	IMD		—	—	−30	dB
Series Equivalent Input Impedance	Z_{in}	V_{CC}=12.5V, f_1=28.000 MHz, f_2=28.001MHz P_O=10W_{PEP}	—	1.5 −j1.0	—	Ω
Series Equivalent Output Impedance	Z_{out}		—	6.5 −j2.0	—	Ω

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