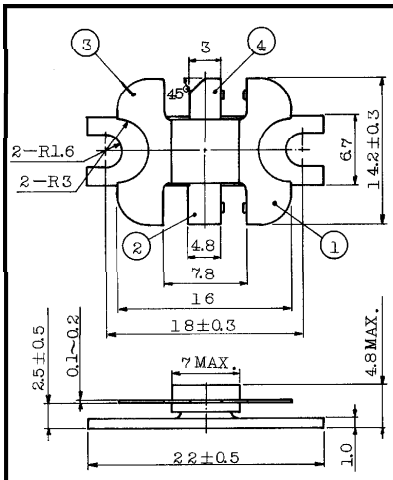
HG Semiconductors

HG RF POWER TRANSISTOR

2SC2642

ROHS Compliance,Silicon NPN POWER TRANSISTOR

- Output Power : Po=12W (Min.)
  (f=470MHz, V_{CC}=12.6V, Pi=3W)



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

JEDEC	—
EIAJ	—
TOSHIBA	2-7A1A

Weight : 1.6g

MAXIMUM RATINGS (Tc = 25°C)

CHARACTERISTIC	SYMBOL	RATING	UNIT
Collector-Base Voltage	V_{CBO}	35	V
Collector-Emitter Voltage	V_{CEO}	17	V
Emitter-Base Voltage	V_{EBO}	3.5	V
Collector Current	I_C	2.8	A
Collector Power Dissipation	P_C	30	W
Junction Temperature	T_j	175	°C
Storage Temperature Range	T_{stg}	−65~175	°C

ELECTRICAL CHARACTERISTICS (Tc = 25°C)

CHARACTERISTIC	SYMBOL	TEST CONDITION	MIN.	TYP.	MAX.	UNIT
Collector Cut-off Current	I_{CBO}	V_{CB}=15V, I_E=0	—	—	1.5	mA
Collector-Base Breakdown Voltage	$V_{(BR)CBO}$	I_C=2mA, I_E=0	35	—	—	V
Collector-Emitter Breakdown Voltage	$V_{(BR)CEO}$	I_C=10mA, I_B=0	17	—	—	V
Emitter-Base Breakdown Voltage	$V_{(BR)EBO}$	I_E=0.2mA, I_C=0	3.5	—	—	V
DC Current Gain	h_{FE}	V_{CE}=5V, I_C=1.5A *	10	—	—	
Collector Output Capacitance	C_{ob}	V_{CB}=10V, I_E=0 f=1MHz	—	28	40	pF
Output Power	Po	(Fig.) V_{CC}=12.6V, f=470MHz Pi=3W	12	—	—	W
Power Gain	G_p		6	—	—	dB
Collector Efficiency	η_C		60	—	—	%
Series Equivalent Input Impedance	Z_{in}	V_{CC}=12.6V, f=470MHz Po=12W	—	1.2 +j4	—	Ω
Series Equivalent Output Impedance	Z_{out}		—	4 +j0.5	—	Ω

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