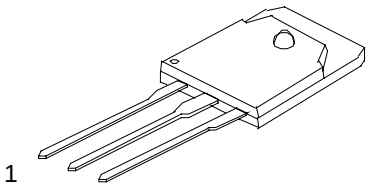
NPN EPITAXIAL SILICON TRANSISTOR

HIGH POWER AMPLIFIER APPLICATION

FEATURES

*Recommended for 45~ 50W Audio Frequency Amplifier Output Stage.

*Complementary to 2SB688.



TO- 3P

1: BASE 2:COLLECTOR 3: EMITTER

ABSOLUTE MAXIMUM RATINGS (Ta=25℃)

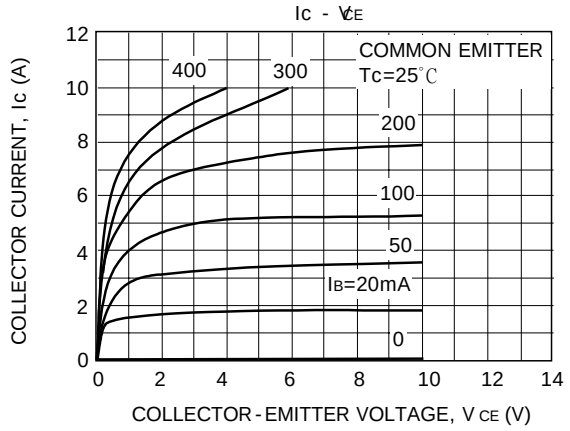
PARAMETER	SYMBOL	RATINGS	UNIT
Collector-Base Voltage	V_{CBO}	120	V
Collector-Emitter Voltage	V_{CEO}	120	V
Emitter-Base Voltage	V_{EBO}	5	V
Collector Current	Ic	10	A
Base Current	I_B	1	A
Collector Power Dissipation (Tc=25℃)	Pc	80	W
Junction Temperature	Tj	150	℃
Storage Temperature Range	Tstg	- 55 ~ 150	℃

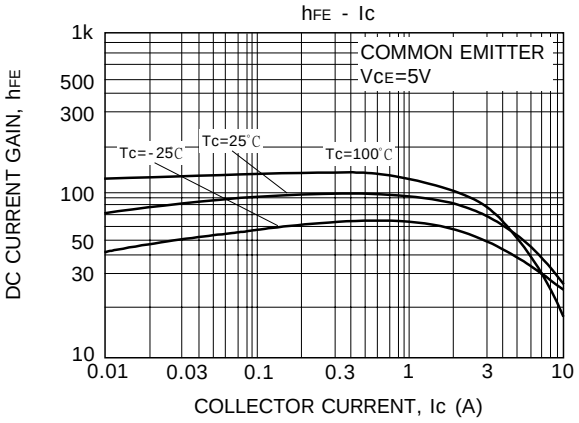
ELECTRICAL CHARACTERISTICS (Ta=25℃,unless otherwise specified))

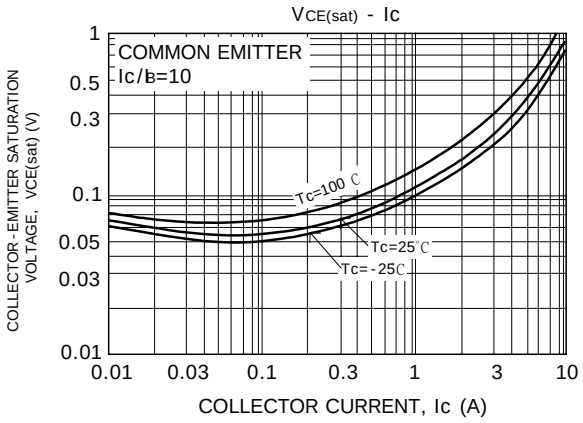
PARAMETER	SYMBOL	TEST CONDITION	MIN	TYP	MAX	UNIT
Collector- Emitter Breakdown Voltage	$V_{(BR)CEO}$	Ic=50mA, I_B=0	120			V
Collector Cut- off Current	I_{CBO}	V_{CB}=120V, I_E=0			10	μA
Emitter Cut- off CurrentI	I_{EBO}	V_{EB}=5V,Ic=0			10	μA
DC Current Gain	H_{FE}	V_{CE}=5V,Ic=1A	55		160	
Collector- Emitter Saturation Voltage	$V_{CE(sat)}$	Ic=6A, I_B=0.6A			2.0	V
Base- Emitter Voltage	V_{BE}	CE=5V,Ic=5A			1.5	V
Transition Frequency	T_f	V_{CE}=5V,Ic=1A		12		MHz
Collector Output Capacitance	Cob	V_{CB}=10V, I_E=0, f=1MHz		170		pF

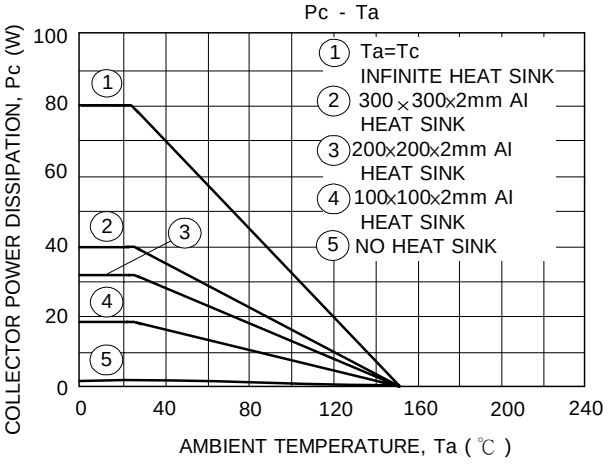
CLASSIFICATION OF hFE

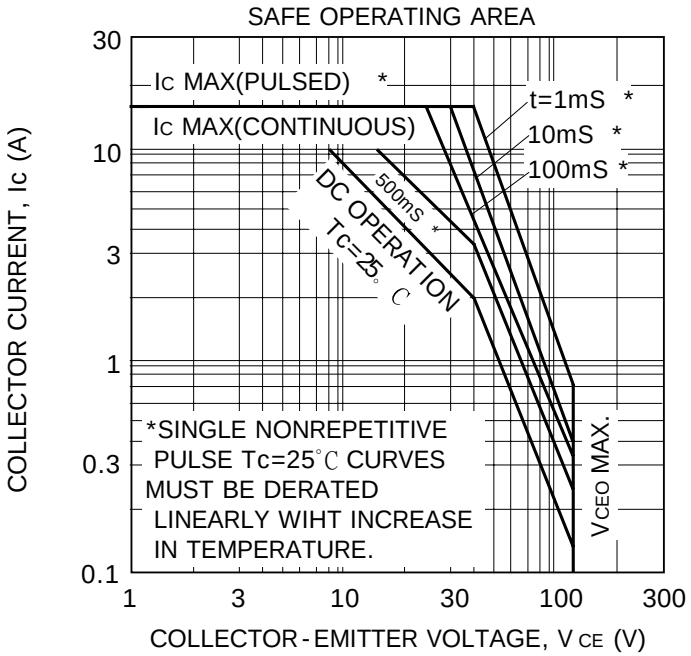
RANK	R	O
RANGE	55-110	80-160


Ic - VCE
COMMON EMITTER
Tc=25℃
400
300
200
100
50
IB=20mA
0
COLLECTOR CURRENT, Ic (A)
COLLECTOR-EMITTER VOLTAGE, VCE (V)


hFE - Ic
COMMON EMITTER
VCE=5V
Tc=-25℃
Tc=25℃
Tc=100℃
DC CURRENT GAIN, hFE
COLLECTOR CURRENT, Ic (A)


VCE(sat) - Ic
COMMON EMITTER
Ic/IB=10
Tc=100℃
Tc=25℃
Tc=-25℃
COLLECTOR-EMITTER SATURATION VOLTAGE, VCE(sat) (V)
COLLECTOR CURRENT, Ic (A)


Pc - Ta
1 Ta=Tc
INFINITE HEAT SINK
2 300×300×2mm Al
HEAT SINK
3 200×200×2mm Al
HEAT SINK
4 100×100×2mm Al
HEAT SINK
5 NO HEAT SINK
COLLECTOR POWER DISSIPATION, Pc (W)
AMBIENT TEMPERATURE, Ta (℃)


SAFE OPERATING AREA
IC MAX(PULSED) *
IC MAX(CONTINUOUS)
t=1mS *
10mS *
100mS *
500mS *
DC OPERATION
Tc=25℃
*SINGLE NONREPETITIVE
PULSE Tc=25℃ CURVES
MUST BE DERATED
LINEARLY WIHT INCREASE
IN TEMPERATURE.
VCEO MAX.
COLLECTOR CURRENT, Ic (A)
COLLECTOR-EMITTER VOLTAGE, VCE (V)