MOSPEC

HIGH-POWER PNP SILICON POWER TRANSISTORS

...designed for use in general-purpose amplifier and switching application .

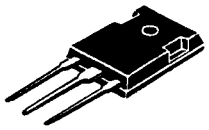
FEATURES:
* Recommend for 125W High Fiderity Audio Frequency Amplifier Output stage
* Complementary to 2SC3281

PNP

2SA1302

15 AMPERE
POWER
TRANASISTOR

200 VOLTS
150 WATTS



TO-247(3P)

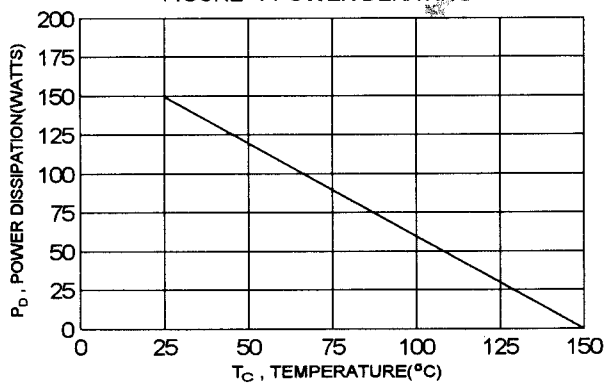
MAXIMUM RATINGS

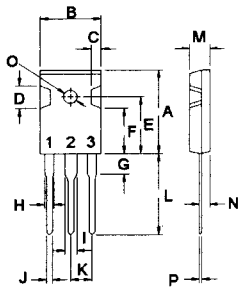
Characteristic	Symbol	2SA1302	Unit
Collector-Emitter Voltage	V_{CEO}	200	V
Collector-Base Voltage	V_{CBO}	200	V
Emitter-Base Voltage	V_{EBO}	5.0	V
Collector Current - Continuous - Peak	I_C I_{CM}	15 20	A
Base current	I_B	2.0	A
Total Power Dissipation @T_C = 25°C Derate above 25°C	P_D	150 1.2	W W/°C
Operating and Storage Junction Temperature Range	T_J , T_{STG}	-55 to +150	°C

THERMAL CHARACTERISTICS

Characteristic	Symbol	Max	Unit
Thermal Resistance Junction to Case	Rθjc	0.83	°C/W

FIGURE -1 POWER DERATING





PIN 1.BASE
2.COLLECTOR
3.EMITTER

DIM	MILLIMETERS	
	MIN	MAX
A	20.63	22.38
B	15.38	16.20
C	1.90	2.70
D	5.10	6.10
E	14.81	15.22
F	11.72	12.84
G	4.20	4.50
H	1.82	2.46
I	2.92	3.23
J	0.89	1.53
K	5.26	5.66
L	18.50	21.50
M	4.68	5.36
N	2.40	2.80
O	3.25	3.65
P	0.55	0.70

ELECTRICAL CHARACTERISTICS (T_C = 25°C unless otherwise noted)

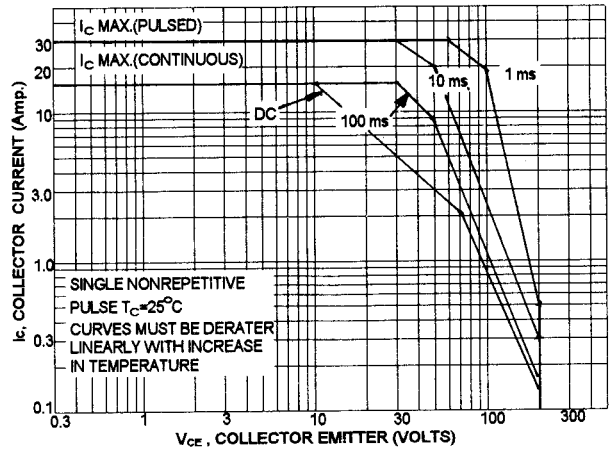
Characteristic	Symbol	Min	Max	Unit
OFF CHARACTERISTICS				
Collector-Emitter Breakdown Voltage (I_C= 50 mA, I_B= 0)	$V_{(BR)CEO}$	200		V
Collector Cutoff Current (V_{CB}= 200 V, I_E= 0)	I_{CBO}		10	uA
Emitter Cutoff Current (V_{EB}= 5.0 V, I_C= 0)	I_{EBO}		10	uA
ON CHARACTERISTICS (1)				
DC Current Gain (I_C= 1.0 A, V_{CE}= 5.0 V) * (I_C= 8.0 A , V_{CE}= 5.0 V)	hFE(2) hFE	55 35	160	
Collector-Emitter Saturation Voltage (I_C= 10 A, I_B= 1.0 A)	$V_{CE(sat)}$		3.0	V
Base-Emitter On Voltage (I_C= 8.0 A, V_{CE}=5.0 V)	$V_{BE(on)}$		1.5	V
DYNAMIC CHARACTERISTICS				
Current-Gain-Bandwidth Product (I_C = 1.0 A, V_{CE} = 5.0 V, f = 1.0 MHz)	f_T	10		MHz

(1) Pulse Test: Pulse Width =300 us,Duty Cycle ≦ 2.0%

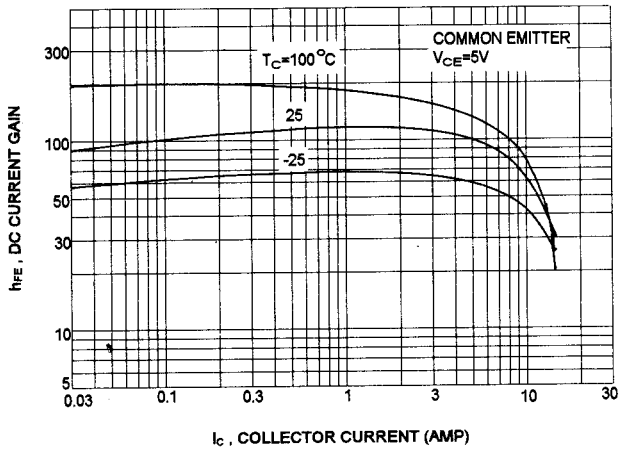
* hFE(2) Classification :

55 R 110	80 O 160

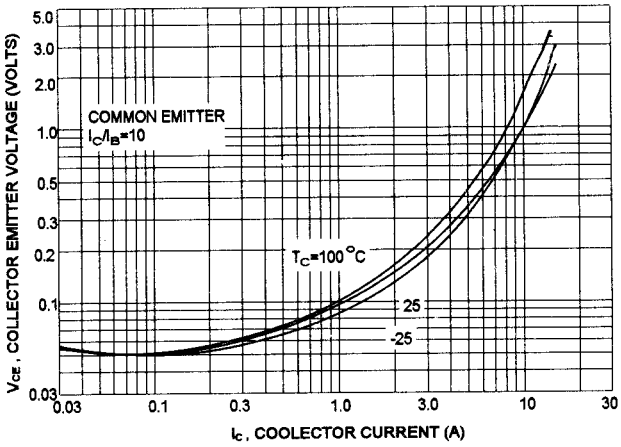
ACTIVE REGION SAFE OPERATING AREA



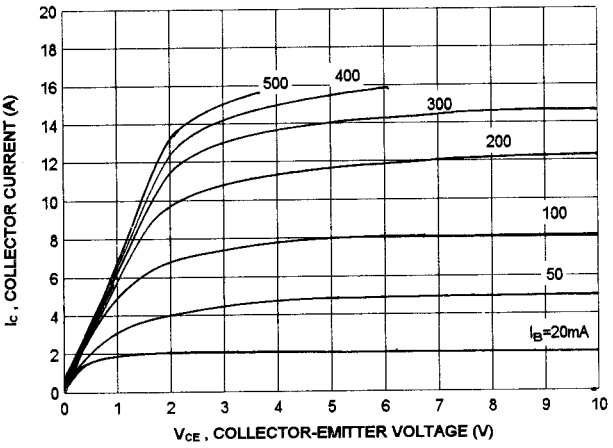
DC CURRENT GAIN



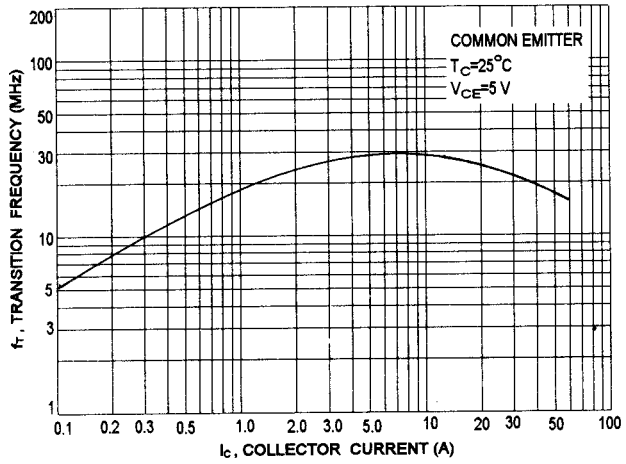
VCE(sat) - Ic



Ic - Vce



f_T - Ic



Ic - Vbe