

PNP High Power Silicon Transistor

V_{CE0} 140V, I_c 12A, 100W

multicompPRO

**RoHS
Compliant**



TO-3

Applications

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

Features

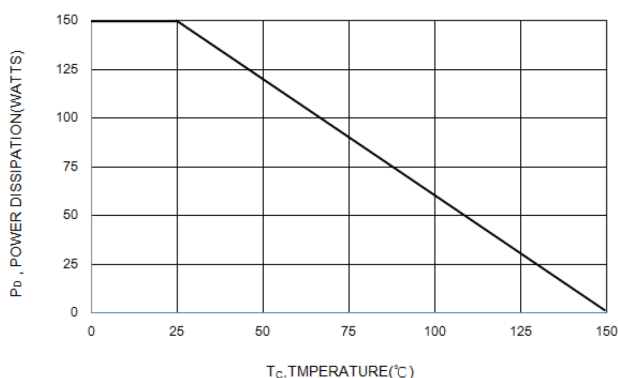
- Recommend for 100W High Fidelity Audio Frequency Amplifier Output Stage
- Complimentary 2SD425

Maximum Ratings and Thermal Characteristics

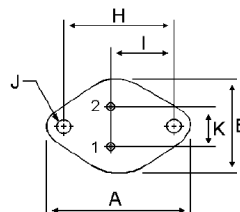
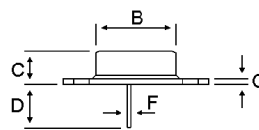
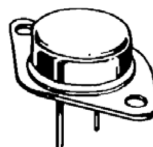
Characteristics	Symbol	Rating	Unit
Collector-Emitter Voltage	V_{CE0}	140	V
Collector-Base Voltage	V_{CBO}	140	
Emitter-Base Voltage	V_{EB}	5	
Collector Current	I_c	12	A
Emitter Current	I_E	12	
Total Device Dissipation @ $T_c = 25^\circ\text{C}$	P_D	100	W
Operating and Storage Junction Temperature Range	T_J, T_{STG}	-55 to +150	$^\circ\text{C}$
Thermal Resistance Junction to Case	$R_{\theta JC}$	1.75	$^\circ\text{C/W}$

Thermal Characteristics

FIGURE-1 POWER DERATING



TO-3



Pin

1. Base
2. Emitter
- Collector (case)

DIM	MILLIMETRES	
	MIN	MAX
A	38.75	39.96
B	19.28	22.23
C	7.96	9.28
D	11.18	12.19
E	25.2	26.67
F	0.92	1.09
G	1.38	1.62
H	29.9	30.4
I	16.64	17.3
J	3.88	4.36
K	10.67	11.18

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Electrical Characteristics (T_C = 25°C Unless otherwise noted)

Characteristics	Symbol	Min	Max	Unit
Off Characteristics				
Collector - Emitter Breakdown Voltage (I _C = 100mA, I _B = 0)	V _{(BR)CEO}	140	-	V
Emitter-Base Breakdown Voltage (I _E = 10mA, I _C = 0)	V _{(BR)EBO}	5	-	
Collector - Cutoff Current (V _{CB} = 50V, I _E = 0)	I _{CBO}	-	0.1	mA
Emitter Cutoff Current (V _{BE} = 5V, I _C = 0)	I _{EBO}	-	0.1	
On Characteristics *				
DC Current Gain (I _C = 2A, V _{CE} = 5V)	hFE	40	140	-
Collector - Emitter Saturation Voltage (I _C = 7A, I _B = 0.7A)	V _{CE(sat)}	-	3	V
Base - Emitter On Voltage (I _C = 10A, V _{CE} = 5V)	V _{BE(on)}	-	2.5	

Dynamic Characteristics

Characteristics	Symbol	Min	Max	Unit
Current-Gain-Bandwidth Product (I _C = 2A, V _{CE} = 5V, f=1MHz)	f _T	6(typ)	-	MHz

Note:

*Pulse Test - Pulse width ≤ 300μs, Duty Cycle ≤ 2%

Part Number Table

Description	Part Number
PNP Transistor, 140V, 12A, 100W, TO-3	2SB555

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