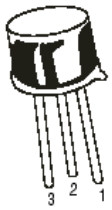
High Voltage Power Transistor

multicomp PRO



Pin Configuration
1. Emitter
2. Base
3. Collector

Features:

- Devices with breakdown voltages of 160V minimum
- NPN Silicon High Voltage Power Transistors

Absolute Maximum Ratings:

(T_a = 25°C unless otherwise specified)

Characteristic	Symbol	Value	Unit
Collector Base Voltage	V_{CBO}	300	V
Collector Emitter Voltage	V_{CES}		
Emitter-Base Voltage	V_{EBO}	5	
Collector Current Continuous	I_C	100	A
Collector Current-Peak	I_{CM}	300	
Power Dissipation at T_a = 25°C Derate above 25°C	P_D	1 5.7	W mW/°C
Power Dissipation at T_C = 25°C Derate above 25°C		5 28.57	
Operating Storage Temperature Range	T_j, T_{stg}	-65 to +200	°C

Thermal Resistance

Junction to Ambient in Free Air	$R_{th(j-a)}$	175	°C/W
Junction to Case	$R_{th(j-c)}$	35	

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Electrical Characteristics:

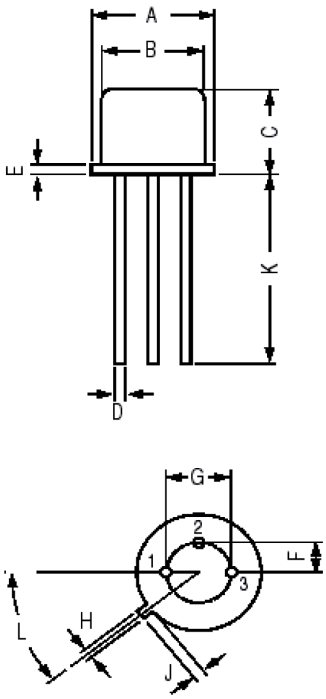
(T_a = +25°C unless otherwise specified)

Parameter	Symbol	Test Condition		Unit
Collector Emitter Voltage	V_{CEO}	I_C = 10mA, I_B = 0	>300	V
Collector Base Voltage	V_{CBO}	I_C = 100µA, I_E = 0	>300	
Emitter Base Voltage	V_{EBO}	I_E = 100µA, I_C = 0	>5	
Collector Cut off Current	I_{CBO}	V_{CBO} = 250V, I_E = 0	<50	nA
DC Current Gain	h_{FE}	I_C = 30mA, V_{CE} = 10V	25	-
Collector Emitter Saturation Voltage	$V_{CE(Sat)}$	I_C = 30mA, I_B = 6mA	1	V

Dynamic Characteristics

Transition Frequency	f_t	I_C = 15mA, V_{CE} = 10V, f = 100MHz	75	MHz
Collector Base Capacitance	C_{ob}	V_{CB} = 30V, I_E = 0, f = 1MHz	2.5	pF

TO-39 Metal Can Package



Dim.	Min.	Max.
A	8.5	9.39
B	7.74	8.5
C	6.09	6.6
D	0.4	0.53
E	-	0.88
F	2.41	2.66
G	4.82	5.33
H	0.71	0.86
J	0.73	1.02
K	12.7	-
L	42°	48°

Dimensions : Millimetres

Pin Configuration

1. Emitter
2. Base
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Part Number Table

Description	Part Number
Transistor, NPN, TO-39	BF259