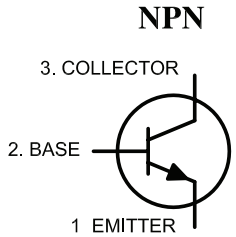
NPN High Voltage Silicon Transistor
350V_{CEO}, 1A I_C

multicomp PRO

TO-39

RoHS Compliant



Absolute Maximum Ratings

Description	Symbol	Value	Unit
Collector Emitter Voltage	V_{CEO}	350	V
Collector Base Voltage	V_{CBO}	450	V
Emitter Base Voltage	V_{EBO}	7	V
Collector Current Continuous	I_C	1	A
Base Current	I_B	0.5	A
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	P_D	5 28.6	W mW/°C
Operating and Storage Junction Temperature Range	Tj, Tstg	-65 to +200	°C
Thermal Resistance			
Junction to Ambient	Rth(j-a)	175	°C/W
Junction to Case	Rth(j-c)	35	°C/W

Electrical Characteristics: (T_A = +25°C Unless otherwise specified)

Description	Symbol	Test Conditions	Value	Unit
Collector Emitter Voltage	$V_{CEO(SUS)}$*	I_C = 50mA, I_B = 0	>350	V
Collector Cut off Current	I_{CBO}	V_{CB} = 360V, I_E = 0 V_{CB} = 250V, I_E = 0	<20 -	µA µA
	I_{CEO}	V_{CE} = 300V, I_B = 0 V_{CE} = 200V, I_B = 0	<20 -	µA µA
	I_{CEX}	V_{CE} = 450V, V_{BE} = 1.5V V_{CE} = 300V, V_{BE} = 1.5V	<500 -	µA µA
Emitter-Cut off Current	I_{EBO}	V_{EB} = 6V, I_C = 0	<20	µA
DC Current Gain	*hFE	I_C = 2mA, V_{CE} = 10V I_C = 20mA, V_{CE} = 10V	>30 40-160	
Collector Emitter Saturation Voltage	*$V_{CE(Sat)}$	I_C = 50mA, I_B = 4mA	<0.5	V
Base Emitter Saturation Voltage	*$V_{BE(Sat)}$	I_C = 50mA, I_B = 4mA	<1.3	V

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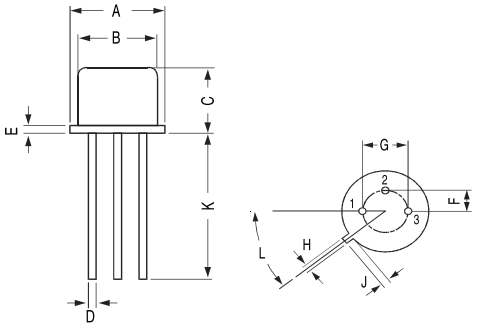
Small Signal Characteristics

Description	Symbol	Test Conditions	Value	Unit
Small Signal Current Gain	hFE	IC = 5mA, VCE = 10V, f = 1kHz	>25	
Output Capacitance	Cob	VCB = 10V, IE = 0, f = 1MHz	<10	pF
Input Capacitance	Cib	VEB = 5V, IC = 0, f = 1MHz	<75	pF
Current Gain-Bandwidth Product	ft	IC = 10mA, VCE = 10V, f = 5MHz	>15	MHz
Real Part of Input Impedance	Re(hie)	VCE - 10V, IC = 5mA, f = 1MHz	<300	Ω

*Pulse Test: Pulse Width < 300µs, Duty Cycle ≤ 2%

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

Dim.	Min.	Max.
G	4.82	5.33
H	0.71	0.86
J	0.73	1.02
K	12.7	-
L	42 Deg.	48 Deg.

Dimensions : Millimetres

Part Number Table

Description	Part Number
NPN High Voltage Silicon Transistor, 350V, 1A, TO-39	MP001170