

# PNP High Voltage Transistor



## Pin Configuration

1. Emitter
2. Base
3. Collector

## Features:

- PNP Silicon High Voltage Transistor
- High speed switching and linear amplifier appliances in Military, Industrial and Commercial Equipment

## Absolute Maximum Ratings:

( $T_a = 25^\circ\text{C}$  unless otherwise specified)

Characteristic	Symbol	Value	Unit
Collector Base Voltage	$V_{CBO}$	350	V
Collector-Emitter Voltage	$V_{CEO}$	300	
Emitter-Base Voltage	$V_{EBO}$	6	
Collector Current Continuous	$I_C$	1	A
Base Current	$I_B$	0.5	
Power Dissipation at $T_a = 25^\circ\text{C}$ Derate above $25^\circ\text{C}$	$P_D$	1	W mW/ $^\circ\text{C}$
Power Dissipation at $T_c = 25^\circ\text{C}$ Derate above $25^\circ\text{C}$		10	W
Operating Temperature	$T_J$	200	mW/ $^\circ\text{C}$
Storage Temperature Range	$T_{stg}$	-65 to +200	$^\circ\text{C}$

## Thermal Resistance

Junction to Ambient	$R_{th(j-a)}$	150	$^\circ\text{C/W}$
Junction to Case	$R_{th(j-c)}$	17.5	

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## Electrical Characteristics:

( $T_a = +25^\circ\text{C}$  unless otherwise specified)

Parameter	Symbol	Test Condition		Unit
Collector Emitter Breakdown Voltage	$BV_{CEO(sus)}^*$	$I_C = 50\text{mA}, I_B = 0$	>300	V
Collector Cut off Current	$I_{CBO}$	$V_{CB} = 280\text{V}, I_E = 0$	<50	$\mu\text{A}$
	$I_{CEO}$	$V_{CE} = 250\text{V}, I_B = 0$		
Emitter Cut off Current	$I_{EBO}$	$V_{EB} = 6\text{V}, I_C = 0$	<20	
Collector Emitter Saturation Voltage	$V_{CE(sat)}$	$I_C = 50\text{mA}, I_B = 5\text{mA}$	<2	V
Base Emitter Saturation Voltage	$V_{BE(sat)}$	$I_C = 50\text{mA}, I_B = 5\text{mA}$	<1.5	
DC Current Gain	$h_{FE}^*$	$I_C = 50\text{mA}, V_{CE} = 10\text{V}$	30 - 120	-

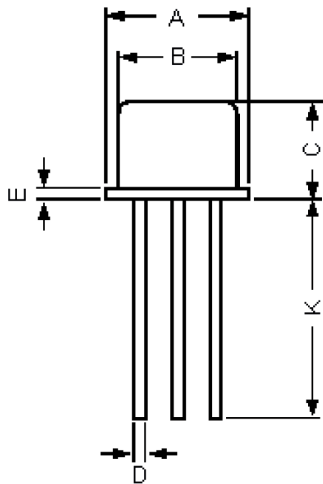
## Dynamic Characteristics

Small Signal Current Gain	$h_{fe}$	$I_C = 5\text{mA}, V_{CE} = 10\text{V}, f = 1\text{kHz}$	>25	-
Transition Frequency	$f_T$	$I_C = 10\text{mA}, V_{CE} = 10\text{V}, f = 5\text{MHz}$	>15	MHz
Output Capacitance	$C_{ob}$	$V_{CB} = 10\text{V}, I_E = 0, f = 1\text{MHz}$	<15	pF
Input Capacitance	$C_{ib}$	$V_{EB} = V_{EBO} \text{ max.}, I_C = 0, f = 1\text{MHz}$	<75	

\*Pulsed: Pulse Width  $\leq 30\mu\text{s}$ , Duty Cycle  $\leq 2\%$

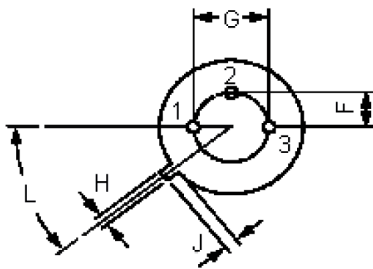
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## TO-39 Metal Can Package



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



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### Part Number Table

Description	Part Number
RF Transistor, PNP, TO-39	2N5416

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