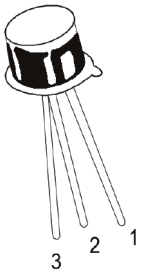
Transistor
PNP, TO-18

multicomp PRO

Pin Configuration
1. Emitter
2. Base
3. Collector



Absolute Maximum Ratings

Description	Symbol	Value	Units
Collector Emitter Voltage	V_{CEO}	40	V
Collector Base Voltage	V_{CBO}	60	
Emitter Base Voltage	V_{EBO}	5	
Collector Current Continuous	I_C	600	mA
Power Dissipation at T_A = 25°C Derate above 25°C	P_D	400 2.28	mW mW/°C
Power Dissipation at T_C = 25°C Derate above 25°C		1.8 10.3	W mW/ ºC
Operating and Storage Junction Temperature Range	T_J, T_{STG}	-65 to +200	°C

Electrical Characteristics: (T_C = +25°C unless specified otherwise)

Description	Symbol	Test Condition	Min.	Max.	Units
Collector Emitter Voltage	*V_{CEO}	I_C = 10mA, I_B = 0	40	-	V
Collector Base Voltage	V_{CBO}	I_C = 10µA, I_E = 0	60	-	
Emitter Base Voltage	V_{EBO}	I_E = 10µA, I_C = 0	5	-	
Collector Cut off Current	I_{CEX}	V_{CE} = 30V, V_{BE} = 0.5V	-	50	nA
Collector Cut off Current	I_{CBO}	V_{CB} = 50V, I_E = 0	-	20	
		V_{CB} = 50V, I_E = 0, T_A = 150°C	-	20	A
Base Current	I_B	V_{CE} = 30V, V_{BE} = 0.5V	-	50	nA
DC Current Gain	h_{FE}	I_C = 0.1mA, V_{CE} = 10V I_C = 1mA, V_{CE} = 10V I_C = 10mA, V_{CE} = 10V *I_C = 150mA, V_{CE} = 10V *I_C = 500mA, V_{CE} = 10V	-	>35 >50 >75 100 - 300 >30	-

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

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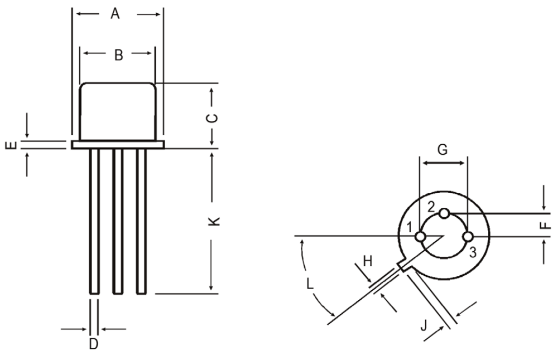
Description	Symbol	Test Condition	Min.	Max.	Units
Small Signal Characteristics					
Collector Emitter Saturation Voltage	*$V_{CE(SAT)}$	I_C = 150mA, I_B = 15mA I_C = 500mA, I_B = 50mA	-	0.4 1.6	V
Base Emitter Saturation Voltage	*$V_{BE(SAT)}$	I_C = 150mA, I_B = 15mA I_C = 500mA, I_B = 50mA	-	1.3 2.6	
Transition Frequency	**f_T	I_C = 50mA, V_{CE} = 20V f = 100MHz	200	-	MHz
Output Capacitance	C_{OBO}	V_{CB} = 10V, I_E = 0 f = 100KHz	-	8	pF
Input Capacitance	C_{IBO}	V_{BE} = 2V, I_C = 0 f = 100KHz	-	30	

Description	Symbol	Test Condition	Min.	Max.	Units
Switching Time					
Delay Time	t_d	I_C = 150mA, I_{B1} = 15mA, V_{CC} = 30V	-	10	nS
Rise Time	t_r		-	40	
Turn on Time	t_{on}		-	45	
Storage Time	t_s	I_C = 150mA, I_{B1} = I_{B2} = 15mA, V_{CC} = 6V	-	80	
Fall Time	t_f		-	30	
Turn off Time	t_{off}		-	100	

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

**f_T is defined as the frequency at which /h_{FE}/ extrapolates to unity

TO-18 Metal Can Package



Dim.	Min.	Max.
A	5.24	5.84
B	4.52	4.97
C	4.31	5.33
D	0.4	0.53
E	-	0.76
F	-	1.27

Dim.	Min.	Max.
G	-	2.97
H	0.91	1.17
J	0.71	1.21
K	12.7	-
L	45°	-

Dimensions : Millimetres

Part Number Table

Description	Part Number
Transistor, PNP, TO-18	2N2907