



Features

- Collector-emitter sustaining voltage - 100mA
- V_{CEO} (sus) = 400V (minimum)
- Optimum drive condition curves

Absolute Maximum Ratings

Parameter	Symbol	Values	Unit
Collector-Emitter Voltage ($R_{BE} = 0$)	V_{CBS}	1,000	V
Collector-Emitter Voltage	V_{CEO}	400	
Emitter-Base Voltage	V_{EBO}	8	
Collector Current-Continuous-Peak	I_C I_{CM}	10 15	A
Base Current-Peak	I_B	3	
Total Power Dissipation at $T_C = 25^\circ\text{C}$ Derate above 25°C	P_D	100 0.57	W W / $^\circ\text{C}$
Operating and Storage Junction Temperature Range	T_J, T_{STG}	-65 to +200	$^\circ\text{C}$

Thermal Data

Thermal Resistance Junction-Case (Max.)	$R_{\theta JC}$	1.75	$^\circ\text{C} / \text{W}$
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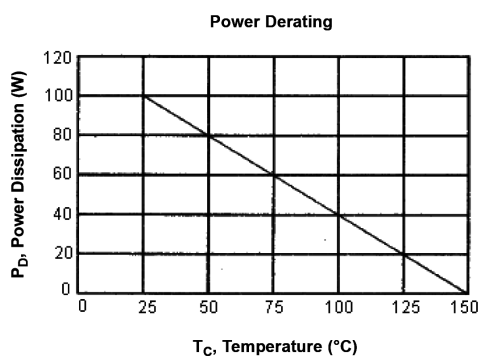
Electrical Characteristics ($T_{CASE} = 25^\circ\text{C}$ unless otherwise specified)

Parameter	Symbol	Minimum	Maximum	Unit
Off Characteristics				
Collector-Emitter Sustaining Voltage (1) (I _C = 100mA, I _B = 0)	V _{CEO} (SUS)	400	-	V
Collector-Base Voltage (I _C = 1mA, I _E = 0)	V _{CBO}	1,000	-	
Collector Cut off Current (V _{CE} = 1,000V, V _{BE} = 0)	I _{CES}	-	1	mA
Emitter-Base Cut off Current (V _{EB} = 8V, I _C = 0)	I _{EBO}	-		
On Characteristics (1)				
DC Current Gain (V _{CE} = 10V, I _C = 2.5A)	h _{FE}	15	-	-
Collector-Emitter Saturation Voltage (I _C = 8A, I _B = 2.5A)	V _{CE} (sat)	-	3.3	V
Base-Emitter Saturation (I _C = 8A, I _B = 2.5A)	V _{BE} (sat)	-	2.2	

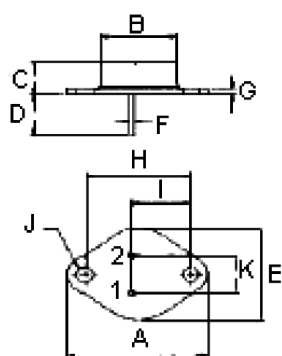
Parameter	Symbol	Minimum	Maximum	Unit
Dynamic Characteristics				
Current Gain-Bandwidth Product (2) ($I_C = 500\text{mA}$, $V_{CE} = 10\text{V}$, $f = 1\text{MHz}$)	f_T	10	-	MHz

(1) Pulse Test : Pulse Width = 300 μs , Duty Cycle $\leq 2\%$

(2) $f_T = |h_{fe}| \cdot f_{\text{test}}$



TO-3



Pin 1. Base
2. Emitter
Collector (Case)

Dimensions	Minimum	Maximum
A	37.75	39.96
B	19.28	22.23
C	7.96	9.28
D	11.18	12.19
E	25.2	26.67
G	0.92	1.09
N	1.38	1.62
P	29.9	30.4
R	16.64	17.3
U	3.88	4.36
V	10.67	11.18

Dimensions : Millimetres

Part Number Table

Description	Part Number
Transistor, NPN, TO-3	BUY69A

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