



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	10	A
	I_{CM}	15	
Base Current-Peak	I_B	3	
Total Power Dissipation at $T_C = 25^\circ\text{C}$ Derate above 25°C	P_D	100	W
		0.57	W / $^\circ\text{C}$
Operating and Storage Junction Temperature Range	T_J, T_{STG}	-65 to +200	$^\circ\text{C}$

Thermal Data

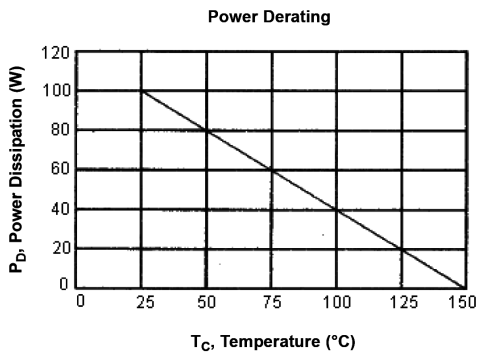
Thermal Resistance Junction-Case (Max.)	$R_{\theta JC}$	1.75	$^\circ\text{C} / \text{W}$
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Electrical Characteristics ($T_{CASE} = 25^\circ\text{C}$ unless otherwise specified)

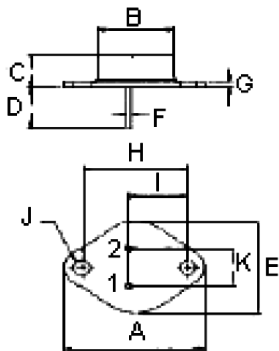
Parameter	Symbol	Minimum	Maximum	Unit
Off Characteristics				
Collector-Emitter Sustaining Voltage (1) ($I_C = 100\text{mA}, I_B = 0$)	V_{CEO} (sus)	400	-	V
Collector-Base Voltage ($I_C = 1\text{mA}, I_E = 0$)	V_{CBO}	1,000	-	
Collector Cut off Current ($V_{CE} = 1,000\text{V}, V_{BE} = 0$)	I_{CES}	-	1	mA
Emitter-Base Cut off Current ($V_{EB} = 8\text{V}, I_C = 0$)	I_{EBO}	-		
On Characteristics (1)				
DC Current Gain ($V_{CE} = 10\text{V}, I_C = 2.5\text{A}$)	h_{FE}	15	-	-
Collector-Emitter Saturation Voltage ($I_C = 8\text{A}, I_B = 2.5\text{A}$)	V_{CE} (sat)	-	3.3	V
Base-Emitter Saturation ($I_C = 8\text{A}, I_B = 2.5\text{A}$)	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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