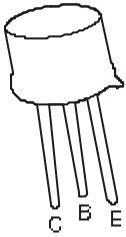


NPN SILICON POWER TRANSISTOR



**TO-39
Metal Can Package**

ABSOLUTE MAXIMUM RATINGS

DESCRIPTION	SYMBOL	VALUE	UNIT
Collector Base Voltage	V_{CBO}	100	V
Collector Emitter Voltage	V_{CEO}	70	V
Emitter Base Voltage	V_{EBO}	7	V
Collector Current	I_C	10	A
Power Dissipation at $T_a=25^\circ\text{C}$ Derate Linearly at $T_a > 25^\circ\text{C}$	P_T	1.0	W
		5.7	mW/°C
Power Dissipation at $T_c=100^\circ\text{C}$ Derate Linearly at $T_c > 25^\circ\text{C}$	P_T	5.0	W
		50	mW/°C
Operating and Storage Junction Temperature Range	T_J, T_{stg}	- 65 to +200	°C
Thermal Resistance Junction to Case	$R_{th(j-c)}$	0.02	°C/mW
Thermal Resistance Junction to Ambient	$R_{th(j-a)}$	0.175	°C/mW

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

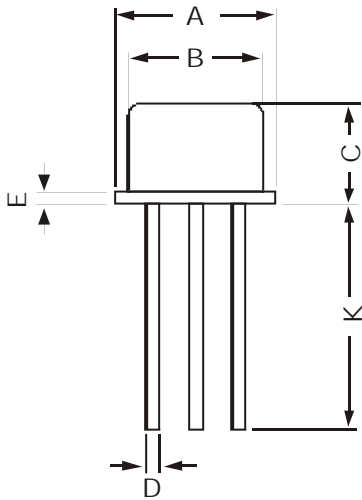
DESCRIPTION	SYMBOL	TEST CONDITION	MIN	MAX	UNIT
OFF CHARACTERISTICS					
Emitter Base Breakdown Voltage	$V_{(BR)EBO}$	$I_C = 10\mu\text{A}$	7		V
Collector Emitter Breakdown Voltage	$V_{(BR)CEO}$	$I_C = 10\text{mA}$	70		V
Collector Emitter Cut Off Current	I_{CEO}	$V_{CB} = 60\text{V}$		10	μA
Collector Base Cut Off Current	I_{CBO}	$V_{CB} = 100\text{V}$		10	μA
Emitter Base Cut Off Current	I_{EBO}	$V_{EB} = 5\text{V}$		100	nA
		$V_{EB} = 7\text{V}$		10	μA
Collector Emitter Cut Off Current	I_{CEX}	$V_{CE} = 60\text{V}, V_{EB} = 0.5\text{V}$		10	μA

ON CHARACTERISTICS

DC Gain	hFE	$I_C = 1.0\text{A}, V_{CE} = 5.0\text{V}$	50	200	
		$I_C = 5.0\text{A}, V_{CE} = 5.0\text{V}$	40	120	
		$I_C = 10\text{A}, V_{CE} = 5.0\text{V}$	10		
Collector Emitter Saturation Voltage	$V_{CE(sat)}$	$I_C = 5.0\text{A}, I_B = 0.5\text{A}$		0.6	V
		$I_C = 10\text{A}, I_B = 1.0\text{A}$		2.5	V
Base Emitter Saturation Voltage	$V_{BE(sat)}$	$I_C = 5.0\text{A}, I_B = 0.5\text{A}$		1.5	V
		$I_C = 10\text{A}, I_B = 1.0\text{A}$		2.5	V

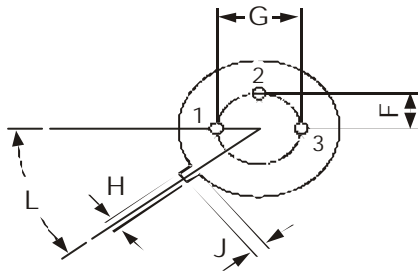
Pulse Test : Pulse width = 300us, Duty Cycle $\leq 2.0\%$

TO-39 Metal Can Package



DIM	MIN	MAX
A	8.50	9.39
B	7.74	8.50
C	6.09	6.60
D	0.40	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	12.70	—
L	42 DEG	48 DEG

All dimensions are in mm



PIN CONFIGURATION

1. EMITTER
2. BASE
3. COLLECTOR

Packing Detail

PACKAGE	STANDARD PACK		INNER CARTON BOX		OUTER CARTON BOX		
	Details	Net Weight/Qty	Size	Qty	Size	Qty	Gr Wt
TO-39	500 pcs/polybag	540 gm/500 pcs	3" x 7.5" x 7.5"	20K	17" x 15" x 13.5"	32K	40 kgs

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