

**PNP SILICON PLANAR TRANSISTOR**

**2N3763**



**TO-39  
Metal Can Package**

**ABSOLUTE MAXIMUM RATINGS**

DESCRIPTION	SYMBOL	VALUE	UNIT
Collector Base Voltage	$V_{CBO}$	60	V
Collector Emitter Voltage	$V_{CEO}$	60	V
Emitter Base Voltage	$V_{EBO}$	5	V
Collector Current	$I_C$	1.5	A
Power Dissipation at $T_a=25^\circ\text{C}$ Derate Linearly at $T_a > 25^\circ\text{C}$	$P_T$	1.0	W
		5.71	mW/°C
Operating and Storage Junction Temperature Range	$T_{op}, T_{stg}$	- 55 to +200	°C
Thermal Resistance Junction to Case	Rth (j-c)	60	°C/W

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

DESCRIPTION	SYMBOL	TEST CONDITION	MIN	MAX	UNIT
<b>OFF CHARACTERISTICS</b>					
Collector Emitter Breakdown Voltage	$V_{(BR)CEO}$	$I_C = 10\text{mA}$	60		V
Collector Base Cut Off Current	$I_{CBO}$	$V_{CE} = 30\text{V}$		100	nA
		$V_{CE} = 60\text{V}$		10	uA
Emitter Base Cut Off Current	$I_{EBO}$	$V_{EB} = 2\text{V}$		200	nA
		$V_{EB} = 5\text{V}$		10	uA
Collector Emitter Cut Off Current	$I_{CEX}$	$V_{CE} = 30\text{V}, V_{EB} = 2.0\text{V}$		100	nA

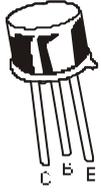
**ON CHARACTERISTICS**

DC Gain	hFE	$I_C=10\text{mA}, V_{CE}=1.0\text{V}$	35		
		$I_C=150\text{mA}, V_{CE}=1.0\text{V}$	40		
		$I_C=500\text{mA}, V_{CE}=1.0\text{V}$	40	140	
		$I_C=1.0\text{A}, V_{CE}=1.5\text{V}$	20	80	
		$I_C=1.5\text{A}, V_{CE}=5\text{V}$	20		
Collector Emitter Saturation Voltage	$V_{CE(sat)}$	$I_C=10\text{mA}, I_B=1\text{mA}$		0.1	V
		$I_C=150\text{mA}, I_B=15\text{mA}$		0.22	V
		$I_C=500\text{mA}, I_B=50\text{mA}$		0.5	V
		$I_C=1.0\text{A}, I_B=100\text{mA}$		0.9	V
Base Emitter Saturation Voltage	$V_{BE(sat)}$	$I_C=10\text{mA}, I_B=1\text{mA}$		0.8	V
		$I_C=150\text{mA}, I_B=15\text{mA}$		1.0	V
		$I_C=500\text{mA}, I_B=50\text{mA}$		1.2	V
		$I_C=1.0\text{A}, I_B=100\text{mA}$	0.9	1.4	V

**Pulse Test : Pulse width = 300us, Duty Cycle <math>\leq 2.0\%</math>**

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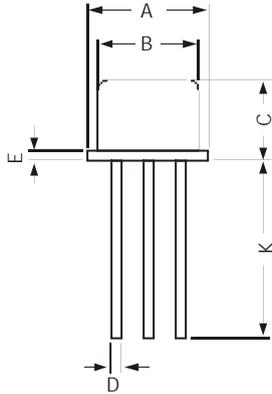


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**DYNAMIC CHARACTERISTICS**

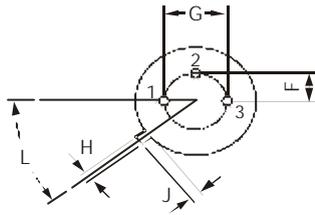
DESCRIPTION	SYMBOL	TEST CONDITION	MIN	MAX	UNIT
Output Capacitance	$C_{cbo}$	$V_{CB} = 10V, I_E = 0, 100KHz < f < 1.0MHz$		25	pF
Input Capacitance	$C_{ibo}$	$V_{BE} = 0.5V, I_C = 0, 100KHz < f < 1.0MHz$		80	pF

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All dimensions are in mm

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



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

Component Disposal Instructions

1. CDIL Semiconductor Devices are RoHS compliant, customers are requested to please dispose as per prevailing Environmental Legislation of their Country.
2. In Europe, please dispose as per EU Directive 2002/96/EC on Waste Electrical and Electronic Equipment (WEEE).

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Continental Device India Limited

An ISO/TS 16949 and ISO 9001 Certified Company



**Customer Notes**

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**Disclaimer**

The product information and the selection guides facilitate selection of the CDIL's Semiconductor Device(s) best suited for application in your product(s) as per your requirement. It is recommended that you completely review our Data Sheet(s) so as to confirm that the Device(s) meet functionality parameters for your application. The information furnished in the Data Sheet and on the CDIL Web Site/CD are believed to be accurate and reliable. CDIL however, does not assume responsibility for inaccuracies or incomplete information. Furthermore, CDIL does not assume liability whatsoever, arising out of the application or use of any CDIL product; neither does it convey any license under its patent rights nor rights of others. These products are not designed for use in life saving/support appliances or systems. CDIL customers selling these products (either as individual Semiconductor Devices or incorporated in their end products), in any life saving/support appliances or systems or applications do so at their own risk and CDIL will not be responsible for any damages resulting from such sale(s).

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