

Continental Device India Limited

An ISO/TS16949 and ISO 9001 Certified Company



NPN SILICON PLANAR TRANSISTOR

2N657

TO-39 Metal Can Package

General Purpose Transistor.

ABSOLUTE MAXIMUM RATINGS (Ta=25°C unless specified otherwise)

DESCRIPTION	SYMBOL	VALUE	UNITS
Collector Emitter Voltage	V_{CEO}	100	V
Collector Base Voltage	V_{CBO}	100	V
Emitter Base Voltage	V_{EBO}	8.0	V
Collector Current	I _C	0.5	Α
Power Dissipation @ Ta=25°C	P_{D}	1.0	W
Derate Above 25°C		5.7	mW/ºC
Power Dissipation@ Tc=25°C	P_{D}	4.0	W
Derate Above 25°C		22.8	mW/°C
Operating And Storage Junction	T_{j},T_{stg}	-65 to +200	°C
Temperature Range			

ELECTRICAL CHARACTERISTICS (Ta=25°C unless specified otherwise)

SYMBOL TEST CONDITION		MIN	MAX	UNITS	
V_{CEO}	$I_C = 250 \mu A, I_B = 0$	100		V	
V_{CBO}	$I_C = 100 \mu A, I_E = 0$	100		V	
V_{EBO}	$I_C = 250 \mu A, I_C = 0$	8.0		V	
I_{CBO}	V_{CB} =30V, I_{E} =0		10	μΑ	
h_{FE}	$I_C=200$ mA, $V_{CE}=10$ V	30	90		
$^*V_{CE(Sat)}$	$I_C=200$ mA, $I_B=40$ mA		4.0	V	
	V _{CEO} V _{CBO} V _{EBO} I _{CBO} h _{FE}	$\begin{array}{ccc} V_{CEO} & I_{C}{=}250\mu\text{A}, I_{B}{=}0 \\ V_{CBO} & I_{C}{=}100\mu\text{A}, I_{E}{=}0 \\ V_{EBO} & I_{C}{=}250\mu\text{A}, I_{C}{=}0 \\ I_{CBO} & V_{CB}{=}30\text{V}, \ I_{E}{=}0 \\ I_{C}{=}200\text{mA}, V_{CE}{=}10\text{V} \end{array}$	$\begin{array}{ccccc} V_{CEO} & I_{C} \!\!=\!\! 250 \mu A, I_{B} \!\!=\!\! 0 & 100 \\ V_{CBO} & I_{C} \!\!=\!\! 100 \mu A, I_{E} \!\!=\!\! 0 & 100 \\ V_{EBO} & I_{C} \!\!=\!\! 250 \mu A, I_{C} \!\!=\!\! 0 & 8.0 \\ I_{CBO} & V_{CB} \!\!=\!\! 30 V, I_{E} \!\!=\!\! 0 \\ h_{FE} & I_{C} \!\!=\!\! 200 m A, V_{CE} \!\!=\!\! 10 V & 30 \\ \end{array}$	$\begin{array}{cccccccccccccccccccccccccccccccccccc$	

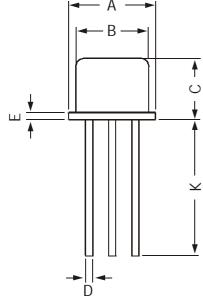
SMALL SIGNAL CHARACTERISTICS

Input Impedance *	h _{fe}	$I_B=8mA$, $V_{CE}=10V$	0.5	$K\Omega$
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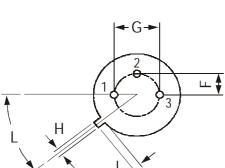
*Pulse Test: Pulse Length= 300µs, Duty Cycle <2%

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DIM	MIN	MAX		
Α	8.50	9.39		
В	7.74	8.50		
С	6.09	6.60		
D	0.40	0.53		
Ε	_	0.88		
F	2.41	2.66		
G	4.82	5.33		
Н	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

Notes 2N657

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Disclaimer

The product information and the selection guides facilitate selection of the CDIL's Discrete 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 is 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 Discrete 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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