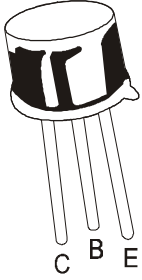


PNP SILICON PLANAR TRANSISTORS

**2N4234, 2N4235
2N4236**

**TO-39
Metal Can Package**



General Purpose Transistor

ABSOLUTE MAXIMUM RATINGS

DESCRIPTION	SYMBOL	2N4234	2N4235	2N4236	UNIT
Collector Emitter Voltage	V_{CEO}	40	60	80	V
Collector Base Voltage	V_{CBO}	40	60	80	V
Emitter Base Voltage	V_{EBO}	7.0			V
Base Current	I_B	200			mA
Collector Current Continuous	I_C	1.0			A
Power Dissipation @ $T_a=25^\circ\text{C}$ Derate Above 25°C	P_D	1.0			W
		5.7			mW/ $^\circ\text{C}$
Power Dissipation @ $T_c=25^\circ\text{C}$ Derate Above 25°C	P_D	6.0			W
		34			mW/ $^\circ\text{C}$
Operating and Storage Junction Temperature Range	T_j, T_{stg}	- 65 to +200			$^\circ\text{C}$

THERMAL CHARACTERISTICS

Junction to Case	$R_{th(j-c)}$	29	$^\circ\text{C/W}$
------------------	---------------	----	--------------------

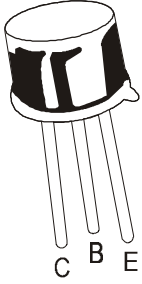
ELECTRICAL CHARACTERISTICS ($T_a=25^\circ\text{C}$ unless specified otherwise)

DESCRIPTION	SYMBOL	TEST CONDITION	2N4234	2N4235	2N4236	UNIT
Collector Emitter Voltage	V_{CEO}	$I_C=1\text{mA}, I_B=0$	40	60	80	V
Collector Cut Off Current	I_{CEO}	$V_{CE}=30\text{V}, I_B=0$ $V_{CE}=40\text{V}, I_B=0$ $V_{CE}=60\text{V}, I_B=0$	1.0	1.0	1.0	mA
Collector Cut Off Current	I_{CEX}	$V_{CE}=40\text{V}, V_{EB}=1.5\text{V}$ $V_{CE}=60\text{V}, V_{EB}=1.5\text{V}$ $V_{CE}=80\text{V}, V_{EB}=1.5\text{V}$ $T_C=150^\circ\text{C}$ $V_{CE}=30\text{V}, V_{EB}=1.5\text{V}$ $V_{CE}=40\text{V}, V_{EB}=1.5\text{V}$ $V_{CE}=60\text{V}, V_{EB}=1.5\text{V}$	0.1	0.1	0.1	mA
			1.0	1.0	1.0	mA
					1.0	mA

			MIN	TYP	MAX	
Collector Cut Off Current	I_{CBO}	$V_{CB}=\text{Rated } V_{CBO}, I_E=0$			0.1	mA
Emitter Cut Off Current	I_{EBO}	$V_{EB}=7\text{V}, I_C=0$			0.5	mA
DC Current Gain	$*h_{FE}$	$I_C=100\text{mA}, V_{CE}=1\text{V}$ $I_C=250\text{mA}, V_{CE}=1\text{V}$ $I_C=500\text{mA}, V_{CE}=1\text{V}$ $I_C=1\text{A}, V_{CE}=1\text{V}$	40 30 20 10		150	

***Pulse Test: Pulse Width $\leq 300\text{ms}$, Duty Cycle $\leq 2\%$**

PNP SILICON PLANAR TRANSISTORS



2N4234, 2N4235
2N4236

TO-39
Metal Can Package

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

SMALL SIGNAL CHARACTERISTICS

DESCRIPTION	SYMBOL	TEST CONDITION	MIN	TYP	MAX	UNIT
Collector Emitter Saturation Voltage	* $V_{CE(sat)}$	$I_C=1\text{A}, I_B=125\text{mA}$			0.6	V
Base Emitter Saturation Voltage	* $V_{BE(sat)}$	$I_C=1\text{A}, I_B=0.1\text{A}$			1.5	V
Base Emitter On Voltage	* $V_{BE(on)}$	$I_C=250\text{mA}, V_{CE}=1\text{V}$			1.0	V

SMALL SIGNAL CHARACTERISTICS

Output Capacitance	C_{obo}	$V_{CB}=10\text{V}, I_E=0,$ $f=100\text{KHz}$			100	pF
Small Signal Current Gain	h_{fe}	$I_C=50\text{mA}, V_{CE}=10\text{V},$ $f=1\text{KHz}$	25			
Current Gain Bandwidth Product	f_T	$I_C=100\text{mA}, V_{CE}=10\text{V},$ $f=1\text{MHz}$	3.0			MHz

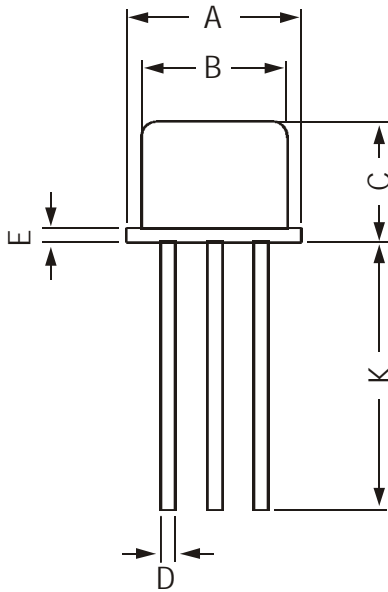
*Pulse Test: Pulse Width $\leq 300\mu\text{s}$, Duty Cycle $\leq 2\%$

2N4234_4236Rev_1 121004E

**2N4234, 2N4235
2N4236**

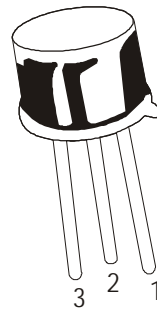
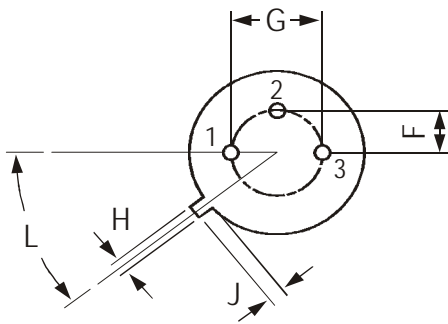
**TO-39
Metal Can Package**

TO-39 Metal Can Package



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

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 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 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).

CDIL strives for continuous improvement and reserves the right to change the specifications of its products without prior notice.



CDIL is a registered Trademark of
Continental Device India Limited

C-120 Naraina Industrial Area, New Delhi 110 028, India.

Telephone + 91-11-2579 6150, 5141 1112 Fax + 91-11-2579 5290, 5141 1119

email@cdil.com www.cdilsemi.com