



An ISO/TS 16949, ISO 9001 and ISO 14001 Certified Company

NPN EPITAXIAL PLANAR SILICON TRANSISTORS

BC300, BC301, BC302





NPN SILICON LOW -AND- MEDIUM POWER TRANSISTORS.

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

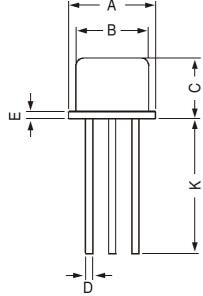
DESCRIPTION	SYMBOL	BOL BC300 BC301				UNITS
DESCRIPTION		BC300	BC301		BC302	UNITS
Collector Emitter Voltage	V_{CEO}	80	60		45	V
Collector Base Voltage	V_{CBO}	120	90		60	V
Emitter Base Voltage	V_{EBO}	7.0	7.0		7.0	V
Collector Current	I _C			500		mA
Power Dissipation @ Ta=25°C	P_{D}			850		mW
Junction Temperature	T_j			175		ōC
Storage Temperature Range	T_{stg}			-65 to +200)	∘C

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

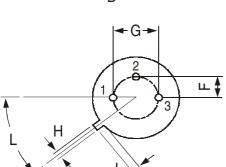
DESCRIPTION	SYMBO	SYMBOL TEST CONDITION		300	BC301	BC302		UNITS
			MIN	MAX	MIN MAX	MIN	MAX	
Collector Cut off Current	I _{CBO}	$V_{CB} = 120V, I_{E} = 0$		20				nA
		$V_{CB}=90V$, $I_{E}=0$			20			nA
		V_{CB} =60V, I_{E} =0					20	nA
DC Current Gain	h_{FE}	$I_C=150$ mA, $V_{CE}=10$ V						
BC300/301/302			40	240				
BC300/301/302-4			40	80				
BC300/301/302-5		$I_C=150$ mA, $V_{CE}=10$ V	70	140				
BC300/301/302-6		$I_C=150mA, V_{CE}=10V$	120	240				
Collector Emitter Sat Voltage	$V_{\text{CE}(\text{Sat})}$	$I_C=150$ mA, $I_B=15$ mA	ALL	0.5				V
DYNAMIC CHARACTERISTIC	<u>s</u>							
Transition Frequency	f_T	$V_{CE}=10V, I_{C}=50mA,$						
A	LL	f=20MHz	100	400				MHz

TO-39 Metal Can Package

TO-39 Metal Can Package



DIM	MIN	MAX
Α	8.50	9.39
В	7.74	8.50
С	6.09	6.60
D	0.40	0.53
Е	_	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

BC300, BC301, BC302

TO-39 Metal Can Package

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).

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 + 91-11-579 6150 Fax + 91-11-579 9569, 579 5290
e-mail sales@cdil.com www.cdil.com

BC 300_302Rev310701