



Continental Device India Limited

An IS/ISO 9002 and IECQ Certified Manufacturer



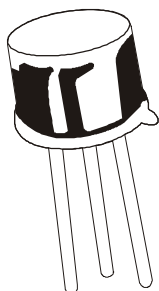
IS/ISO 9002  
Lic# QSC/L- 000019.2



IS / IECQC 70000  
IS / IECQC 750100

## NPN/PNP SILICON PLANAR TRANSISTORS

CL100S NPN  
CK100S PNP  
TO-39



### ABSOLUTE MAXIMUM RATINGS

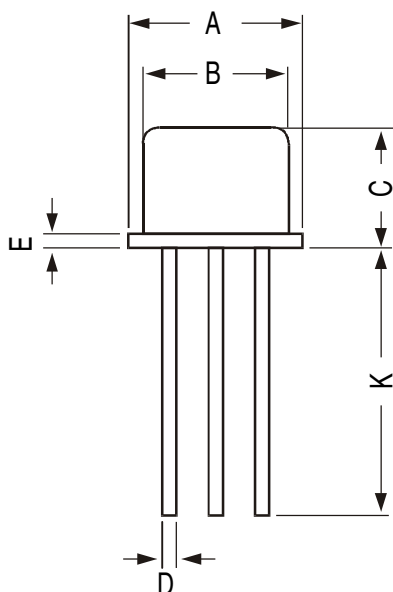
DESCRIPTION	SYMBOL	VALUE	UNIT
Collector -Emitter Voltage	VCEO	50	V
Collector -Base Voltage	VCBO	60	V
Emitter Base Voltage	VEBO	5.0	V
Collector Current	ICM	1.0	A
Power Dissipation @ Ta=25 deg C	PD	800	mW
Derate Above 25 deg C		5.33	mW/deg C
Power Dissipation @ Tc=25 deg C	PD	3.0	W
Derate Above 25 deg C		20	mW/deg C
Operating & Storage Junction Temperature Range	Tj, Tstg	-55 to +175	deg C

### ELECTRICAL CHARACTERISTICS (Ta=25 deg C Unless Otherwise Specified)

DESCRIPTION	SYMBOL	TEST CONDITION	MIN	TYP	MAX	UNIT
Collector -Emitter Voltage	VCEO	IC=1mA, IB=0	50	-	-	V
Collector -Base Voltage	VCBO	IC=100uA, IE=0	60	-	-	V
Emitter Base Voltage	VEBO	IE=100uA, IC=0	5.0	-	-	V
Collector Cut off Current	ICBO	VCB=40V, IE=0	-	-	1.0	uA
Emitter Cut off Current	IEBO	VEB=5V, IC=0	-	-	1.0	uA
DC Current Gain	hFE*	2mA, VCE=5V	20	-	-	
Collector -Emitter (sat) Voltage	VCE(sat)*	IC=150mA, IB=15mA	-	-	0.60	V

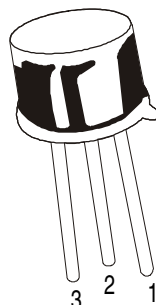
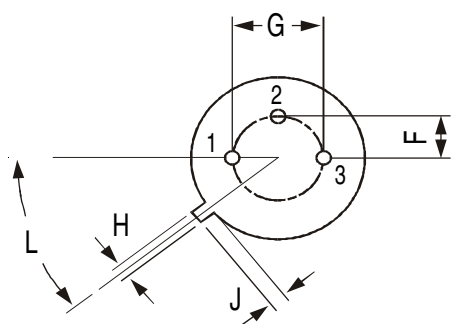
\*Pulse Condition : Pulse Width =300us, Duty Cycle=2%

## 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"	20.0K	17" x 15" x 13.5"	32.0K	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 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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**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

www.DataSheet4U.com