

Continental Device India Limited

An IS/ISO 9002 and IECQ Certified Manufacturer



NPN SILICON PLANAR TRANSISTORS



CL 100, A, B CK 100, A, B

TO-39 Metal Can Package

CL100 And CK 100 Are Medium Power Transistors Suitable For Awide Range Of Medium Voltage And Current Amplifier Applications.

Complementary CK100, A, B

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

DESCRIPTION	SYMBOL	VALUE	UNITS	
Collector -Emitter Voltage	V_{CER}	50	V	
Collector -Base Voltage	V_{CBO}	60	V	
Emitter Base Voltage	V_{EBO}	5	V	
Collector Current-Continuous	I_{CM}	1	Α	
Power Dissipation @ Ta=25°C	P_{D}	800	mW	
Derate above 25ºC		5.33	mW /°C	
Total device dissipation @ Tc=25°C	P_{D}	3	W	
Derate above 25°C		20	mW /°C	
Operating And Storage Junction	T_{j},T_{stg}	-55 to +175	°C	
Temperature Range				

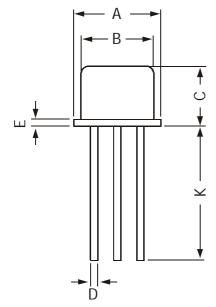
ELECTRICAL CHARACTERISTICS (Ta=25°C unless specified otherwise)

DESCRIPTION	SYMBOL	TEST CONDITION	MIN	TYP	MAX	UNIT
Collector Emitter Breakdown Voltage	BV _{CER} *	$I_{C} = 10 \text{mA}, I_{B} = 0$	50			V
Collector Base Breakdown Voltage	BV_CBO	$I_{C} = 100 \mu A, I_{E} = 0$	60			V
Emitter Base Breakdown Voltage	BV_EBO	$I_E=100\mu A, I_C=0$	5			V
Collector Leakage Current	I_{CBO}	V_{CB} =40V, I_{E} =0			50	nA
Emitter Leakage Current	I_{EBO}	V_{EB} =4 V , I_{E} =0			1	μΑ
DC Current Gain	h _{FE} *	$I_C=150$ mA, $V_{CE}=10$ V	40		300	
Base Emitter On Voltage	$V_{BE}(on)^*$	V_{CE} =1V, I_{C} =150mA,			0.9	V
Collector Emitter (Sat) Voltage	V _{CE} (sat)*	$I_C=150$ mA, $I_B=15$ mA			0.6	V
CLASSIFICATION	Α	В				
HFE	40-120	100-300				

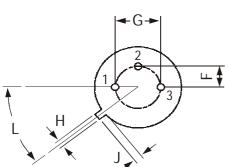
*Pulse Condition : PW ≤300us, Duty Cycle ≤ 2%

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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
Κ	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

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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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