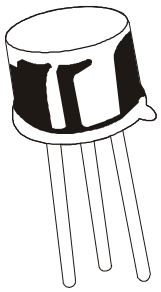
Continental Device India Limited

An ISO/TS16949 and ISO 9001 Certified Company

PNP/NPN HIGH VOLTAGE SILICON TRANSISTORS

2N5679 2N5681
2N5680 2N5682
PNP NPN
TO-39 TO-39



These Are High Voltage & High Current, General Purpose Transistors

ABSOLUTE MAXIMUM RATINGS.

DESCRIPTION	SYMBOL	2N5679 2N5681	2N5680 2N5682	UNITS
Collector -Emitter Voltage	VCEO	100	120	V
Collector -Base Voltage	VCBO	100	120	V
Emitter -Base Voltage	VEBO	4.0		V
Collector Current Continuous	IC	1.0		A
Base Current	IB	0.5		A
Power Dissipation @Ta=25 degC	PD	1.0		W
Derate Above 25deg C		5.7		mW/deg C
Power Dissipation @Tc=25 degC	PD	10		W
Derate Above 25deg C		57		mW/deg C
Operating And Storage Junction Temperature Range	Tj, Tstg	-65 to +200		deg C
THERMAL RESISTANCE				
Junction to Case	Rth(j-c)	17.5		deg C/W
Junction to Ambient	Rth(j-a)	175		deg C/W

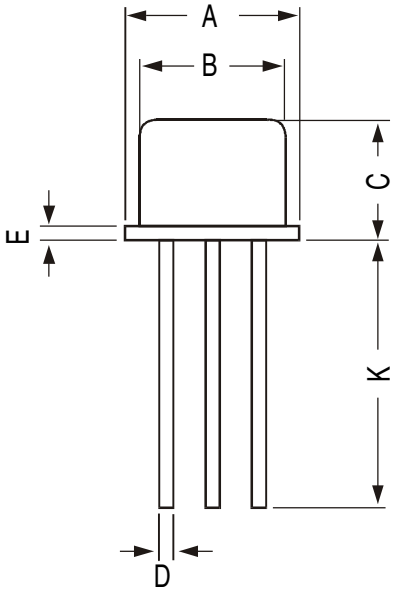
ELECTRICAL CHARACTERISTICS (Ta=25 deg C Unless Otherwise Specified)

DESCRIPTION	SYMBOL	TEST CONDITION	2N5679 2N5681	2N5680 2N5682	UNITS
Collector -Emitter Voltage	VCEO(sus)	IC=10mA,IB=0	>100	>120	V
Collector-Cut off Current	ICBO	VCB=100V, IE=0	<1.0	-	uA
		VCB=120V, IE=0	-	<1.0	uA
	ICEO	VCE=70V, IB=0	<10	-	uA
		VCE=80V, IB=0	-	<10	uA
	ICEX	VCE=100V,VEB=1.5V	<1.0	-	uA
		VCE=120V,VEB=1.5V	-	<1.0	uA
		TC=150 deg C			
		VCE=100V,VEB=1.5V	<1.0	-	mA
		VCE=120V,VEB=1.5V	-	<1.0	mA
Emitter-Cut off Current	IEBO	VEB=4V, IC=0	<1.0	<1.0	uA

ELECTRICAL CHARACTERISTICS (Ta=25 deg C Unless Otherwise Specified)			2N5679-82		
DESCRIPTION	**SYMBOL**	**TEST CONDITION**	**2N5679 2N5681**	**2N5680 2N5682**	**UNITS**
DC Current Gain	hFE*	IC=1A,VCE=2V	>5.0	-	
		IC=250mA,VCE=2V	40-150	40-150	
Collector Emitter Saturation Voltage	VCE(Sat)*	IC=250mA,IB=25mA	<0.60	<0.60	V
		IC=500mA,IB=50mA	<1.0	<1.0	V
		IC=1A, IB=200mA	<2,0	<2.0	V
Base Emitter on Voltage	VBE(on)*	IC=250mA,VCE=2V	<1.0	<1.0	V
SMALL SIGNAL CHARACTERISTICS					
Small Signal Current Gain	hfe	IC=200mA, VCE=1.5V f=1kHz	>20	>20	
Out-Put Capacitance	Cob	VCB=20V, IE=0 f=1MHz	<50	<50	pF
Transistors Frequency	ft	IC=100mA, VCE=10V f=10MHz	>30	>30	MHz

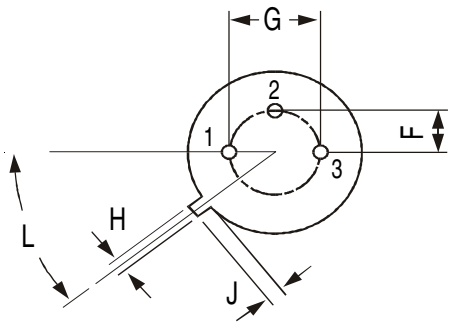
***Pulse Test: Pulse Width: =300us, Duty Cycle=2%**

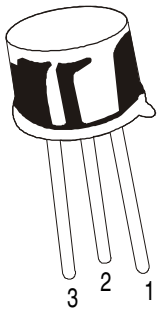
TO-39 Metal Can Package



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

Notes

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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