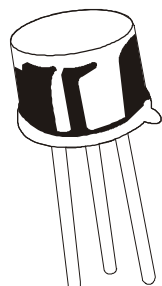


PNP/NPN HIGH VOLTAGE SILICON TRANSISTORS



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)

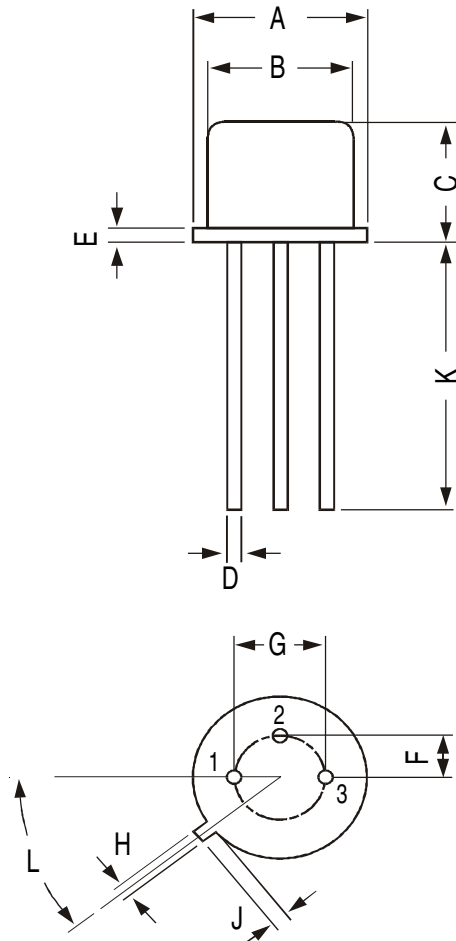
DESCRIPTION	SYMBOL	TEST CONDITION	2N5679 2N5681	2N5680 2N5682	UNITS
Collector -Emitter Voltage	VCEO(sus)	IC=10mA, IB=0	>100	>120	V
Collector-Cut off Current	ICBO	VCB=100V, IE=0	<1.0	-	uA
		VCB=120V, IE=0	-	<1.0	uA
	ICEO	VCE=70V, IB=0	<10	-	uA
		VCE=80V, IB=0	-	<10	uA
	ICEX	VCE=100V, VEB=1.5V	<1.0	-	uA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

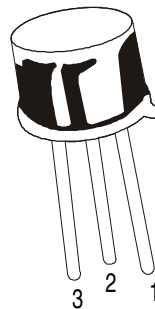
SMALL SIGNAL CHARACTERISTICS

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**

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

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"	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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