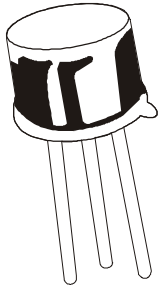



PNP/NPN HIGH VOLTAGE SILICON TRANSISTORS

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	V _{CEO}	100	120	V
Collector -Base Voltage	V _{CBO}	100	120	V
Emitter -Base Voltage	V _{EBO}		4.0	V
Collector Current Continuous	I _C		1.0	A
Base Current	I _B		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	T _j , T _{stg}	-65 to +200		deg C

THERMAL RESISTANCE

Junction to Case	R _{th(j-c)}		17.5	deg C/W
Junction to Ambient	R _{th(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	V _{CEO(sus)}	I _C =10mA, I _B =0	>100	>120	V
Collector-Cut off Current	I _{CBO}	V _{CB} =100V, I _E =0	<1.0	-	uA
		V _{CB} =120V, I _E =0	-	<1.0	uA
	I _{CEO}	V _{CE} =70V, I _B =0	<10	-	uA
		V _{CE} =80V, I _B =0	-	<10	uA
	I _{CEX}	V _{CE} =100V, V _{EB} =1.5V	<1.0	-	uA
V _{CE} =120V, V _{EB} =1.5V		-	<1.0	uA	
Emitter-Cut off Current	I _{EBO}	TC=150 deg C V _{CE} =100V, V _{EB} =1.5V	<1.0	-	mA
		V _{CE} =120V, V _{EB} =1.5V	-	<1.0	mA
		V _{EB} =4V, I _C =0	<1.0	<1.0	uA

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

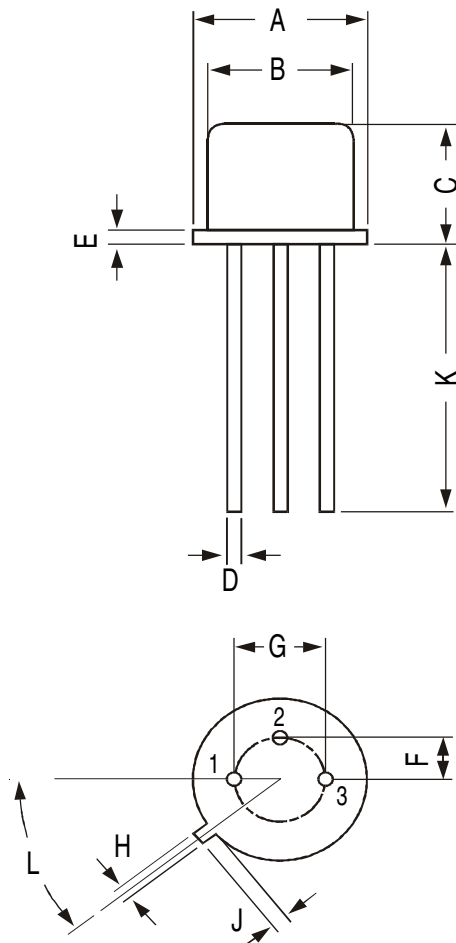
2N5679-82

DESCRIPTION	SYMBOL	TEST CONDITION	2N5679	2N5680	UNITS
			2N5681	2N5682	
DC Current Gain	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	>20	>20	
Out-Put Capacitance	Cob	VCB=20V, IE=0	<50	<50	pF
		f=1MHz			
Transistors Frequency	ft	IC=100mA, VCE=10V	>30	>30	MHz
		f=10MHz			

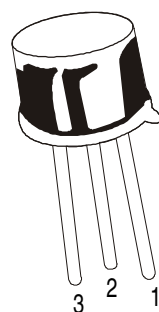
*Pulse Test: Pulse Width: =300us, Duty Cycle=2%

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