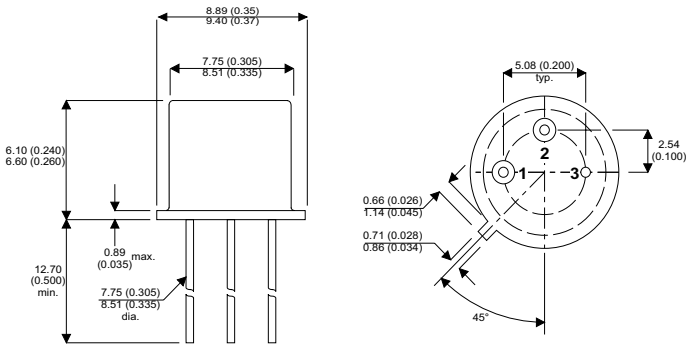
2N5679
2N5680

MECHANICAL DATA
Dimensions in mm (inches)

PNP SILICON TRANSISTORS



DESCRIPTION

The 2N5679 and 2N5680 are silicon expitaxial planar PNP transistors in jedec TO-39 metal case intended for use as drivers for high power transistors in general purpose, amplifier and switching circuit

The complementary NPN types are the 2N5681 and 2N5682 respectively

TO-39

Pin 1 – Emitter Pin 2 – Base Pin 3 – Collector

ABSOLUTE MAXIMUM RATINGS

T_{CASE} = 25°c unless otherwise stated		2N5679	2N5680
V_{CBO}	Collector – Base Voltage	-100V	-120V
V_{CEO}	Collector – Emitter Voltage (I_B = 0)	-100V	-120V
V_{EBO}	Emitter – Base Voltage (I_C = 0)	-4V	
I_C	Continuous Collector Current	-1A	
I_B	Base Current	-0.5A	
P_{tot}	Total Dissipation at $T_{case} \leq 25°C$	10W	
	$T_{amb} \leq 25°C$	1W	
T_{stg}	Operating and Storage Temperature Range	–65 to +200°C	
T_j	Junction temperature	200°C	

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SEME LAB

2N5679
2N5680

THERMAL DATA

$R_{thj\text{-}case}$	Thermal Resistance Junction-case	Max	17.5	°C/W
$R_{thj\text{-}amb}$	Thermal Resistance Junction-ambient	Max	175	°C/W

ELECTRICAL CHARACTERISTICS (T_{case} = 25°C unless otherwise stated)

Parameter		Test Conditions		Min.	Typ.	Max.	Unit
I_{CBO}	Collector Cut Off Current	I_E = 0					µA
		for 2N5679	V_{CB} = -100V			-1	
		for 2N5680	V_{CB} = -120V			-1	
I_{CEV}	Collector Cut Off Current	V_{BE} = 1.5					µA
		for 2N5679	V_{CE} = -100V			-1	
		for 2N5680	V_{CE} = -120V			-1	
		T_{case} = 150°C					mA
		for 2N5679	V_{CE} = -100V			-1	
		for 2n5680	V_{CE} = -120V			-1	
I_{CEO}	Collector Cut Off Current	I_B = 0					µA
		for 2N5679	V_{CE} = -70V			-10	
		for 2N5680	V_{CE} = -80V			-10	
I_{EBO}	Emitter Cut Off Current	I_C = 0	V_{EB} = -4V			-1	
$V_{CEO(sus)*}$	Collector Emitter Sustaining Voltage	I_B = 0	I_C = -10mA				V
		for 2N5679		-100			
		for 2N5680		-120			
$V_{CE(sat)*}$	Collector Emitter Saturation Voltage	I_C = -250mA	I_B = -25mA			-0.6	
		I_C = -500mA	I_B = -50mA			-1	
		I_C = -1A	I_B = -200mA			-2	
V_{BE*}	Base Emitter Voltage	I_C = -250mA	V_{CE} = -2V			-1	
h_{FE*}	DC Current Gain	I_C = -250mA	V_{CE} = -2V	40		150	
		I_C = -1A	V_{CE} = -2V	5			
f_T	Transistion Frequency	I_C = -100mA	V_{CE} = -10V	30			MHz
		f = 10MHz					
C_{CBO}	Collector Base Capacitance	I_E = 0	V_{CB} = -20V			50	pF
		f = 1MHz					
h_{fe}	Small Signal Current Gain	I_C = -0.2A	V_{CE} = -1.5V	40			
		f = 1KHz					

* Pulse test t_p = 300µs , δ < 2%