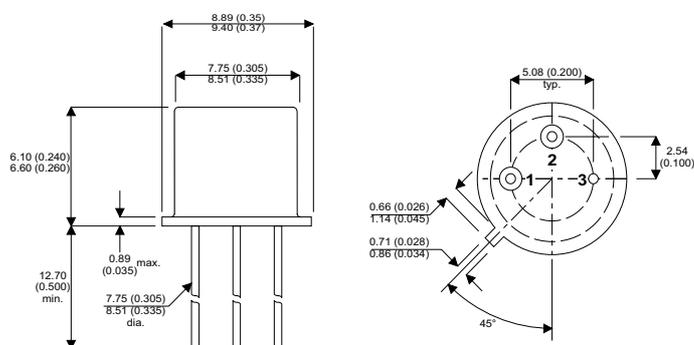


**MECHANICAL DATA**

Dimensions in mm (inches)

**PNP SILICON TRANSISTORS**



**DESCRIPTION**

The 2N5679 and 2N5680 are silicon epitaxial 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**

$T_{CASE} = 25^{\circ}C$  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 $T_{case} \leq 25^{\circ}C$		10W
	$T_{amb} \leq 25^{\circ}C$		1W
$T_{stg}$	Operating and Storage Temperature Range		-65 to +200°C
$T_j$	Junction temperature		200°C

**THERMAL DATA**

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

**ELECTRICAL CHARACTERISTICS** ( $T_{case} = 25^{\circ}C$  unless otherwise stated)

Parameter	Test Conditions	Min.	Typ.	Max.	Unit
$I_{CBO}$	Collector Cut Off Current $I_E = 0$ for 2N5679 $V_{CB} = -100V$ for 2N5680 $V_{CB} = -120V$			-1	$\mu A$
$I_{CEV}$	Collector Cut Off Current $V_{BE} = 1.5$ for 2N5679 $V_{CE} = -100V$ for 2N5680 $V_{CE} = -120V$			-1	$\mu A$
		$T_{case} = 150^{\circ}C$ for 2N5679 $V_{CE} = -100V$ for 2N5680 $V_{CE} = -120V$			-1
$I_{CEO}$	Collector Cut Off Current $I_B = 0$ for 2N5679 $V_{CE} = -70V$ for 2N5680 $V_{CE} = -80V$			-10	$\mu A$
$I_{EBO}$	Emitter Cut Off Current $I_C = 0$ $V_{EB} = -4V$			-1	
$V_{CEO(sus)*}$	Collector Emitter Sustaining Voltage $I_B = 0$ $I_C = -10mA$ for 2N5679 for 2N5680	-100			V
$V_{CE(sat)*}$	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 $I_C = -100mA$ $V_{CE} = -10V$ $f = 10MHz$	30			MHz
$C_{CBO}$	Collector Base Capacitance $I_E = 0$ $V_{CB} = -20V$ $f = 1MHz$			50	pF
$h_{fe}$	Small Signal Current Gain $I_C = -0.2A$ $V_{CE} = -1.5V$ $f = 1KHz$	40			

\* Pulse test  $t_p = 300\mu s$ ,  $\delta < 2\%$