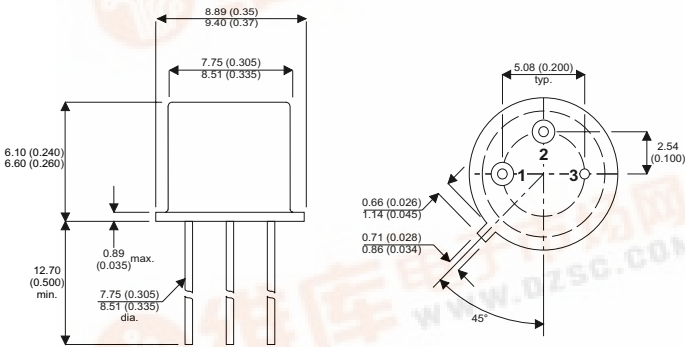




2N5679
2N5680

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
	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 -1	μA
I_{CEV}	Collector Cut Off Current $V_{BE} = 1.5$ for 2N5679 $V_{CE} = -100V$ for 2N5680 $V_{CE} = -120V$			-1 -1	μA
		$T_{case} = 150^{\circ}C$ for 2N5679 $V_{CE} = -100V$ for 2N5680 $V_{CE} = -120V$			-1 -1
I_{CEO}	Collector Cut Off Current $I_B = 0$ for 2N5679 $V_{CE} = -70V$ for 2N5680 $V_{CE} = -80V$			-10 -10	μA
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 -120			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 $I_C = -250mA$ $V_{CE} = -2V$ $I_C = -1A$ $V_{CE} = -2V$	40		150	
		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 $t_p = 300\mu s$, $\delta < 2\%$