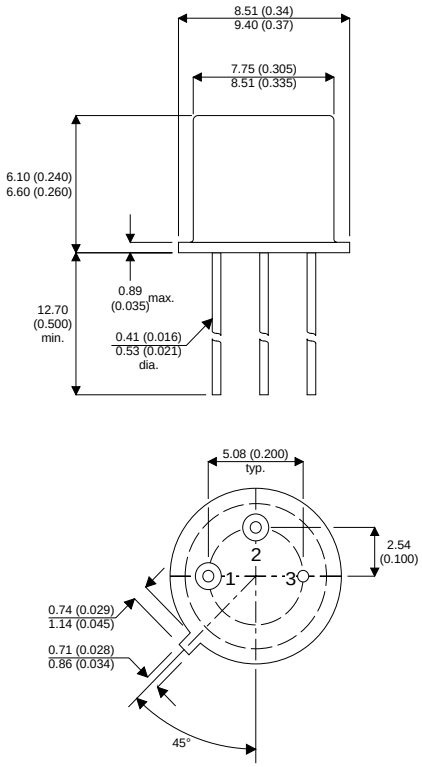
2N5679
2N5680

MECHANICAL DATA
Dimensions in mm (inches)



TO-39 (TO-205AD)

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

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

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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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					
		for 2N5679	V_{CB} = -100V			-1	µA
		for 2N5680	V_{CB} = -120V			-1	
I_{CEV}	Collector Cut Off Current	V_{BE} = 1.5					
		for 2N5679	V_{CE} = -100V			-1	µA
		for 2N5680	V_{CE} = -120V			-1	
		T_{case} = 150°C					
		for 2N5679	V_{CE} = -100V			-1	mA
		for 2n5680	V_{CE} = -120V			-1	
I_{CEO}	Collector Cut Off Current	I_B = 0					
		for 2N5679	V_{CE} = -70V			-10	µA
		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%

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