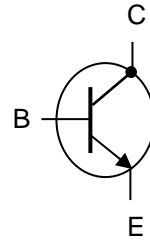


2N5679 – 2N5680

PNP SWITCHING TRANSISTORS

The 2N5679 and 2N5680 are silicon epitaxial planar PNP transistors in jedec TO-39 metal case. They are 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 . Compliance to RoHS.



ABSOLUTE MAXIMUM RATINGS

Symbol	Ratings		Value		Unit
			25679	2N5680	
V_{CEO}	Collector-Emitter Voltage	$I_B = 0$	-100	-120	V
V_{CBO}	Collector-Base Voltage	$I_E = 0$	-100	-120	V
V_{EBO}	Emitter-Base Voltage	$I_C = 0$	-4		V
I_C	Collector Current		-1		A
I_B	Base Current		-500		mA
P_D	Total Power Dissipation	$T_{amb} = 25^\circ\text{C}$	1		W
		$T_{case} = 25^\circ\text{C}$	10		
T_J	Junction Temperature		200		$^\circ\text{C}$
T_{Stg}	Storage Temperature range		-65 to +150		

THERMAL CHARACTERISTICS

Symbol	Ratings	Value	Unit
R_{thJ-a}	Thermal Resistance, Junction to ambient	175	$^\circ\text{C/W}$
R_{thJ-c}	Thermal Resistance, Junction to case	17.5	$^\circ\text{C/W}$

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ELECTRICAL CHARACTERISTICS

T_j=25°C unless otherwise specified

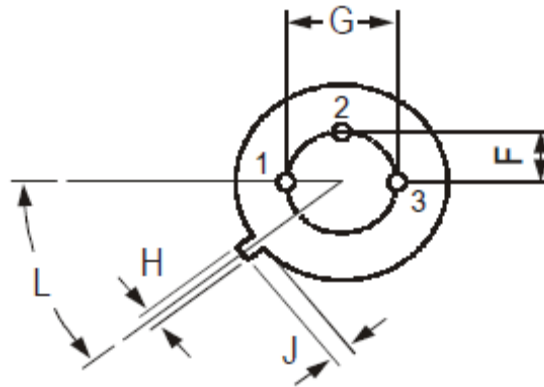
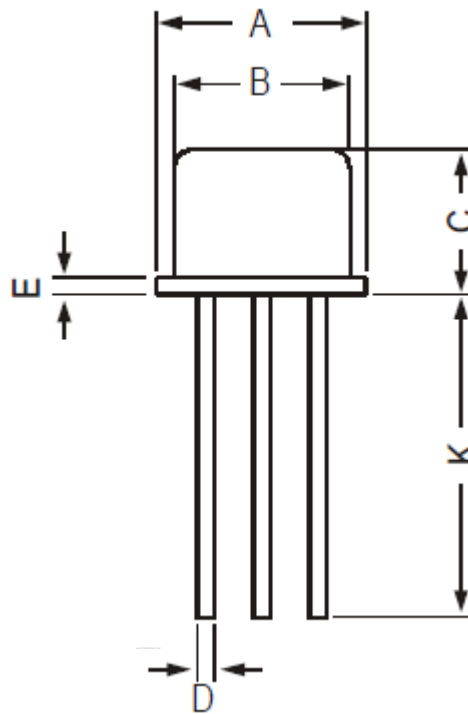
Symbol	Ratings	Test Condition(s)	Min	Typ	Mx	Unit					
I _{CBO}	Collector Cutoff Current	V _{CB} = -100 V, I _E = 0	2N5679	-	-	-1	μA				
		V _{CB} = -120 V, I _E = 0	2N5680								
I _{CEO}	Collector Cutoff Current	V _{CE} = -70 V, I _B = 0	2N5679	-	-	-10	μA				
		V _{CE} = -80 V, I _B = 0	2N5680								
I _{CEV}	Collector Cutoff Current	V _{CE} = -100 V, V _{BE} = 1.5 V	2N5679	-	-	-1	μA				
		V _{CE} = -120 V, V _{BE} = 1.5 V	2N5680								
		V _{CE} = -100 V, V _{BE} = 1.5 V T _C = 150°C	2N5679					-	-	-1	mA
		V _{CE} = -120 V, V _{BE} = 1.5 V T _C = 150°C	2N5680								
I _{EBO}	Emitter Cutoff Current	V _{BE} = -4.0 V, I _C = 0	2N5679	-	-	-1	μA				
			2N5680								
V _{CEO(sus)}	Collector Emitter Sustaining voltage (*)	I _C = -10 mA, I _B = 0	2N5679	-100	-	-	V				
			2N5680					-120			
V _{CE(SAT)}	Collector-Emitter saturation Voltage (*)	I _C = -250 mA I _B = -25 mA	2N5679	-	-	-0.6	V				
			2N5680								
		I _C = -500 mA I _B = -50 mA	2N5679					-	-	-1	
			2N5680								
I _C = -1 A I _B = -200 mA	2N5679	-	-	-2							
	2N5680										
V _{BE}	Base-Emitter Voltage (*)	I _C = -250 mA, V _{CE} = -2 V	2N5679	-	-	-1	V				
			2N5680								
h _{FE}	DC Current Gain (*)	I _C = -250 mA, V _{CE} = -2 V	2N5679	40	-	150	V				
			2N5680								
		I _C = -1 A, V _{CE} = -2 V	2N5679	5	-	-					
			2N5680								
f _T	Transition frequency	I _C = -100 mA, V _{CE} = -10 V f = 10 MHz	2N5679	30	-	-	MHz				
			2N5680								
C _{OB}	Output Capacitance	I _E = 0, V _{CB} = -20 V f = 1MHz	2N5679	-	-	50	pF				
			2N5680								
h _{fe}	Small Signal Current Gain	I _C = -200 mA, V _{CE} = -1.5 V f = 1 kHz	2N5679	40	-	-	-				
			2N5680								

(*) Pulse Width ≈ 300 μs, Duty Cycle < 2.0%

2N5679 – 2N5680

MECHANICAL DATA CASE TO-39

DIMENSIONS (mm)		
	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°	48°



Pin 1 :	Emitter
Pin 2 :	Base
Pin 3 :	Collector
Case :	Collector

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