

## PNP DUAL SILICON TRANSISTOR

Qualified per MIL-PRF-19500/496

### Devices

2N5795

2N5796  
2N5796U

### Qualified Level

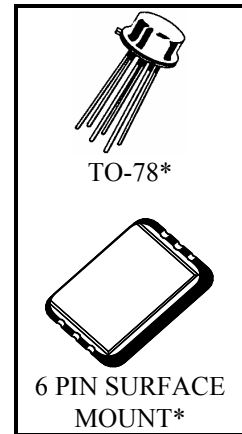
JAN  
JANTX  
JANTXV

### MAXIMUM RATINGS

Ratings	Symbol	Value		Units
Collector-Emitter Voltage	$V_{CEO}$	60		Vdc
Collector-Base Voltage	$V_{CBO}$	60		Vdc
Emitter-Base Voltage	$V_{EBO}$	5.0		Vdc
Collector Current	$I_C$	600		mAdc
		<b>One<sup>(1)</sup> Section</b>	<b>Both<sup>(2)</sup> Sections</b>	
Total Power Dissipation @ $T_A = +25^{\circ}\text{C}$	$P_T$	0.5	0.6	W
Operating & Storage Junction Temperature Range	$T_J, T_{stg}$	-65 to +175		$^{\circ}\text{C}$

1) Derate linearly 2.86 mW/ $^{\circ}\text{C}$  for  $T_A \geq +25^{\circ}\text{C}$

2) Derate linearly 3.43 mW/ $^{\circ}\text{C}$  for  $T_A \geq +25^{\circ}\text{C}$



\*See MILPRF19500/496 for package outline

### ELECTRICAL CHARACTERISTICS ( $T_A = 25^{\circ}\text{C}$ unless otherwise noted)

Characteristics	Symbol	Min.	Max.	Unit
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### OFF CHARACTERISTICS

Collector-Emitter Breakdown Voltage $I_C = 10 \text{ mAdc}$	$V_{(BR)CEO}$	60		Vdc
Collector-Base Cutoff Current $V_{CB} = 50 \text{ Vdc}$ $V_{CBO} = 60 \text{ Vdc}$	$I_{CBO}$		10 10	$\eta\text{Adc}$ $\mu\text{Adc}$
Emitter-Base Cutoff Current $V_{EB} = 3.0 \text{ Vdc}$ $V_{EB} = 5.0 \text{ Vdc}$	$I_{EBO}$		100 10	$\eta\text{Adc}$ $\mu\text{Adc}$

2N5795, 2N5796 JAN SERIES

**ELECTRICAL CHARACTERISTICS (con't)**

Characteristics	Symbol	Min.	Max.	Unit
<b>ON CHARACTERISTICS (1)</b>				
Forward-Current Transfer Ratio I <sub>C</sub> = 100 μA <sub>dc</sub> , V <sub>CE</sub> = 10 V <sub>dc</sub> I <sub>C</sub> = 1.0 mA <sub>dc</sub> , V <sub>CE</sub> = 10 V <sub>dc</sub> I <sub>C</sub> = 10 mA <sub>dc</sub> , V <sub>CE</sub> = 10 V <sub>dc</sub> I <sub>C</sub> = 150 mA <sub>dc</sub> , V <sub>CE</sub> = 10 V <sub>dc</sub> I <sub>C</sub> = 300 mA <sub>dc</sub> , V <sub>CE</sub> = 10 V <sub>dc</sub> I <sub>C</sub> = 150 mA <sub>dc</sub> , V <sub>CE</sub> = 1.0 V <sub>dc</sub>	2N5795	40 40 40 40 20 20	150	
I <sub>C</sub> = 100 μA <sub>dc</sub> , V <sub>CE</sub> = 10 V <sub>dc</sub> I <sub>C</sub> = 1.0 mA <sub>dc</sub> , V <sub>CE</sub> = 10 V <sub>dc</sub> I <sub>C</sub> = 10 mA <sub>dc</sub> , V <sub>CE</sub> = 10 V <sub>dc</sub> I <sub>C</sub> = 150 mA <sub>dc</sub> , V <sub>CE</sub> = 10 V <sub>dc</sub> I <sub>C</sub> = 300 mA <sub>dc</sub> , V <sub>CE</sub> = 10 V <sub>dc</sub> I <sub>C</sub> = 150 mA <sub>dc</sub> , V <sub>CE</sub> = 1.0 V <sub>dc</sub>	2N5796 2N5796U	75 100 100 100 50 50	300	
Collector-Emitter Saturation Voltage I <sub>C</sub> = 150 mA <sub>dc</sub> , I <sub>B</sub> = 15 mA <sub>dc</sub> I <sub>C</sub> = 500 mA <sub>dc</sub> , I <sub>B</sub> = 50 mA <sub>dc</sub>	V <sub>CE(sat)</sub>		0.4 1.6	V <sub>dc</sub>
Base-Emitter Saturation Voltage I <sub>C</sub> = 150 mA <sub>dc</sub> , I <sub>B</sub> = 15 mA <sub>dc</sub> I <sub>C</sub> = 500 mA <sub>dc</sub> , I <sub>B</sub> = 50 mA <sub>dc</sub>	V <sub>BE(sat)</sub>		1.3 2.6	V <sub>dc</sub>

**DYNAMIC CHARACTERISTICS**

Magnitude of Small-Signal Forward Current Transfer Ratio I <sub>C</sub> = 20 mA <sub>dc</sub> , V <sub>CE</sub> = 20 V <sub>dc</sub> , f = 100 MHz	h <sub>fe</sub>	2.0	10	
Output Capacitance V <sub>CB</sub> = 10 V <sub>dc</sub> , I <sub>E</sub> = 0, 100 kHz ≤ f ≤ 1.0 MHz	C <sub>obo</sub>		8.0	pF
Input Capacitance V <sub>EB</sub> = 2.0 V <sub>dc</sub> , I <sub>C</sub> = 0, 100 kHz ≤ f ≤ 1.0 MHz	C <sub>ibo</sub>		25	pF

**SWITCHING CHARACTERISTICS**

Turn-On Time V <sub>CC</sub> = 30 V <sub>dc</sub> ; I <sub>C</sub> = 150 mA <sub>dc</sub> ; I <sub>B1</sub> = 15 mA <sub>dc</sub>	t <sub>on</sub>		50	ns
Turn-Off Time V <sub>CC</sub> = 30 V <sub>dc</sub> ; I <sub>C</sub> = 150 mA <sub>dc</sub> ; I <sub>B1</sub> = I <sub>B2</sub> = 15 mA <sub>dc</sub>	t <sub>off</sub>		140	ns

1) Pulse Test: Pulse Width = 300μs, Duty Cycle ≤ 2.0%.