

# 2N5795 2N5796

JAN, JTX, JTXV AVAILABLE  
CASE 654-07, STYLE 1

DUAL TRANSISTOR

PNP SILICON

## MAXIMUM RATINGS

Rating	Symbol	Value		Unit
Collector-Emitter Voltage	V <sub>CEO</sub>	60		Vdc
Collector-Base Voltage	V <sub>CBO</sub>	60		Vdc
Emitter-Base Voltage	V <sub>EBO</sub>	5.0		Vdc
Collector Current — Continuous	I <sub>C</sub>	600		mAdc
		One Die	Both Die Equal Power	
Total Device Dissipation @ T <sub>A</sub> = 25°C Derate above 25°C	P <sub>D</sub>	500 2.9	600 3.4	mW mW/°C
Total Power Dissipation @ T <sub>C</sub> = 25°C Derate above 25°C	P <sub>D</sub>	1.2 6.9	2.0 11.43	Watts mW/°C
Operating and Storage Junction Temperature Range	T <sub>J</sub> , T <sub>stg</sub>	-65 to +200		°C

Refer to MD2904,A for graphs.

## ELECTRICAL CHARACTERISTICS (T<sub>A</sub> = 25°C unless otherwise noted.)

Characteristic	Symbol	Min	Max	Unit
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### OFF CHARACTERISTICS

Collector-Emitter Breakdown Voltage(1) (I <sub>C</sub> = 10 mAdc, I <sub>B</sub> = 0)	V <sub>(BR)CEO</sub>	60	—	Vdc
Collector-Base Breakdown Voltage (I <sub>C</sub> = 10 μAdc, I <sub>E</sub> = 0)	V <sub>(BR)CBO</sub>	60	—	Vdc
Emitter-Base Breakdown Voltage (I <sub>E</sub> = 10 μAdc, I <sub>C</sub> = 0)	V <sub>(BR)EBO</sub>	5.0	—	Vdc
Collector Cutoff Current (V <sub>CB</sub> = 50 Vdc, I <sub>E</sub> = 0)	I <sub>CBO</sub>	—	20	nAdc
Emitter Cutoff Current (V <sub>BE</sub> = 3.0 Vdc, I <sub>C</sub> = 0)	I <sub>EBO</sub>	—	100	nAdc
Collector 1 to Collector 2 Leakage Current (V <sub>1C-2C</sub> = ±50 Vdc)	I <sub>C1-C2</sub>	—	±1.0	nAdc

### ON CHARACTERISTICS

DC Current Gain (I <sub>C</sub> = 100 μAdc, V <sub>CE</sub> = 10 Vdc)	2N5795	h <sub>FE</sub>	40	—	—
	2N5796		75	—	
(I <sub>C</sub> = 1.0 mAdc, V <sub>CE</sub> = 10 Vdc)	2N5795		40	—	
	2N5796		100	—	
(I <sub>C</sub> = 10 mAdc, V <sub>CE</sub> = 10 Vdc)(1)	2N5795		40	—	
	2N5796		100	—	
(I <sub>C</sub> = 150 mAdc, V <sub>CE</sub> = 1.0 Vdc)(1)	2N5795		20	—	
	2N5796		50	—	
(I <sub>C</sub> = 150 mAdc, V <sub>CE</sub> = 10 Vdc)(1)	2N5795		40	120	
	2N5796		100	300	
(I <sub>C</sub> = 500 mAdc, V <sub>CE</sub> = 10 Vdc)(1)	2N5795		40	—	
	2N5796		50	—	
Collector-Emitter Saturation Voltage(1) (I <sub>C</sub> = 150 mAdc, I <sub>B</sub> = 15 mAdc)	V <sub>CE(sat)</sub>	—	0.4	—	Vdc
(I <sub>C</sub> = 500 mAdc, I <sub>B</sub> = 50 mAdc)		—	1.6	—	
Base-Emitter Saturation Voltage(1) (I <sub>C</sub> = 150 mAdc, I <sub>B</sub> = 15 mAdc)	V <sub>BE(sat)</sub>	—	1.3	—	Vdc
(I <sub>C</sub> = 500 mAdc, I <sub>B</sub> = 50 mAdc)		—	2.6	—	

### SMALL-SIGNAL CHARACTERISTICS

Current-Gain — Bandwidth Product(2) (I <sub>C</sub> = 50 mAdc, V <sub>CE</sub> = 20 Vdc, f = 100 MHz)	f <sub>T</sub>	200	—	MHz
Collector-Base Capacitance (V <sub>CB</sub> = 10 Vdc, I <sub>E</sub> = 0, f = 100 kHz)	C <sub>cb</sub>	—	8.0	pF
Emitter-Base Capacitance (V <sub>EB</sub> = 2.0 Vdc, I <sub>C</sub> = 0, f = 100 kHz)	C <sub>eb</sub>	—	30	pF

### SWITCHING CHARACTERISTICS (See Figure 1)

Delay Time	(V <sub>CC</sub> = 30 Vdc, V <sub>BE(off)</sub> = 0.5 Vdc, I <sub>C</sub> = 150 mAdc, I <sub>B1</sub> = 15 mAdc)	t <sub>d</sub>	—	12	ns
Rise Time		t <sub>r</sub>	—	35	ns
Storage Time	(V <sub>CC</sub> = 30 Vdc, I <sub>C</sub> = 150 mAdc, I <sub>B1</sub> = I <sub>B2</sub> = 15 mAdc)	t <sub>s</sub>	—	100	ns
Fall Time		t <sub>f</sub>	—	40	ns

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

(2) f<sub>T</sub> is defined as the frequency at which |h<sub>fe</sub>| extrapolates to unity.