



TECHNICAL DATA

PNP HIGH POWER SILICON TRANSISTOR

Qualified per MIL-PRF-19500/379

Devices

2N3791

2N3792

Qualified Level

JAN
JANTX
JANTXV

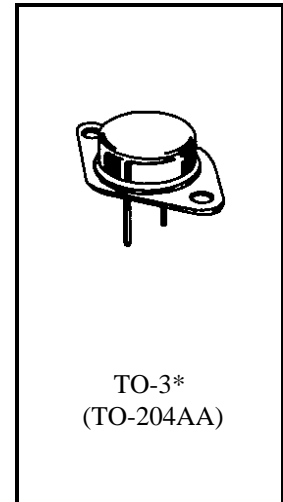
MAXIMUM RATINGS

Ratings	Symbol	2N3791	2N3792	Unit
Collector-Emitter Voltage	V _{CEO}	60	80	Vdc
Collector-Base Voltage	V _{CBO}	60	80	Vdc
Emitter-Base Voltage	V _{EBO}	7.0		Vdc
Base Current	I _B	4.0		Adc
Collector Current	I _C	10		Adc
Total Power Dissipation	@ T _A = +25°C ⁽¹⁾	5.0		W
	@ T _C = +100°C ⁽²⁾	85.7		W
Operating & Storage Junction Temperature Range	T _J , T _{stg}	-65 to +200		°C

THERMAL CHARACTERISTICS

Characteristics	Symbol	Max.	Unit
Thermal Resistance, Junction-to-Case	R _{θJC}	1.17	°C/W

- 1) Derate linearly @ 28.57 mW/°C for T_A > +25°C
- 2) Derate linearly @ 0.857 mW/°C for T_C > +100°C



*See Appendix A for Package Outline

ELECTRICAL CHARACTERISTICS (T_C = 25°C unless otherwise noted)

Characteristics	Symbol	Min.	Max.	Unit
-----------------	--------	------	------	------

OFF CHARACTERISTICS

Collector-Emitter Breakdown Voltage I _C = 10 mAdc	2N3791 2N3792	V _{(BR)CEO}	60 80	Vdc
Collector-Emitter Cutoff Current V _{CE} = 50 Vdc V _{CE} = 70 Vdc	2N3791 2N3792	I _{CES}	5.0 5.0	mAdc
Collector-Emitter Cutoff Current V _{CE} = 60 Vdc, V _{BE} = 1.5 Vdc V _{CE} = 80 Vdc, V _{BE} = 1.5 Vdc	2N3791 2N3792	I _{CEX}	5.0 5.0	mAdc

ELECTRICAL CHARACTERISTICS (con't)

Characteristics	Symbol	Min.	Max.	Unit
Collector-Base Cutoff Current V _{CB} = 60 Vdc V _{CB} = 80 Vdc	I _{CBO}		5.0 5.0	mAdc
Emitter-Base Cutoff Current V _{EB} = 7.0 Vdc	I _{EBO}		5.0	mAdc

ON CHARACTERISTICS ⁽³⁾

Forward-Current Transfer Ratio I _C = 1.0 Adc, V _{CE} = 2.0 Vdc I _C = 3.0 Adc, V _{CE} = 2.0 Vdc I _C = 5.0 Adc, V _{CE} = 2.0 Vdc I _C = 10 Adc, V _{CE} = 4.0 Vdc	h _{FE}	50 30 10 5.0	150 120	
Collector-Emitter Saturation Voltage I _C = 5.0 Adc, I _B = 0.5 Adc I _C = 10 Adc, I _B = 2.0 Adc	V _{CE(sat)}		1.0 2.5	Vdc
Base-Emitter Saturation Voltage I _C = 5.0 Adc, I _B = 0.5 Adc I _C = 10 Adc, I _B = 2.0 Adc	V _{BE(sat)}		1.5 3.0	Vdc

DYNAMIC CHARACTERISTICS

Magnitude of Common Emitter Small-Signal Short-Circuit Forward Current Transfer Ratio I _C = 0.5 Adc, V _{CE} = 10 Vdc, f = 1.0 MHz	h _{fe}	4.0	20	
Small-Signal Short-Circuit Forward Current Transfer Ratio I _C = 0.5 Adc, V _{CE} = 10 Vdc, f = 1.0 kHz	h _{fe}	30	300	
Output Capacitance V _{CB} = 10 Vdc, I _E = 0, f = 1.0 MHz	C _{obo}		500	pF

SAFE OPERATING AREA

DC Tests				
T _C = +25°C, 1 Cycle, t ≥ 1.0 s				
Test 1				
V _{CE} = 15 Vdc, I _C = 10 Adc				
Test 2				
V _{CE} = 40 Vdc, I _C = 3.75 Adc				
Test 3				
V _{CE} = 55 Vdc, I _C = 0.9 Adc	2N3791			
V _{CE} = 65 Vdc, I _C = 0.9 Adc	2N3792			

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

Copyright © Each Manufacturing Company.

All Datasheets cannot be modified without permission.

This datasheet has been download from :

www.AllDataSheet.com

100% Free DataSheet Search Site.

Free Download.

No Register.

Fast Search System.

www.AllDataSheet.com