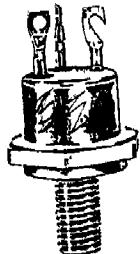


New Jersey Semi-Conductor Products, Inc.

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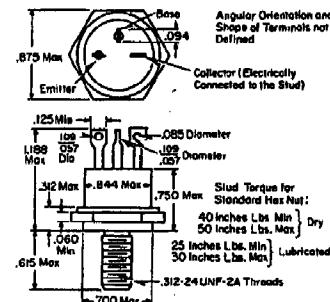
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Silicon Power Transistors JEDEC Types 2N2757-78*

30 Amperes, 200 Watts
Collector-to-Emitter Voltage 50 to 250 Volts

Dimensions in Inches



Maximum Ratings

Voltage

Collector to emitter, 2N2757	2N2763	2N2769	2N2775.....	50
V _{CE} @ V _{dc} 2N2758	2N2764	2N2770	2N2776.....	100
2N2759	2N2765	2N2771	2N2777.....	150
2N2760	2N2766	2N2772	2N2778.....	200
2N2761.....				250

Emitter to base, V_{EB}, Vdc..... 15

Collector to base, V_{CB}, Vdc..... equal to rated V_{CE}

Current

Collector current, I_C, Adc..... 30

Base current, I_B, Adc..... 7.5

Temperature

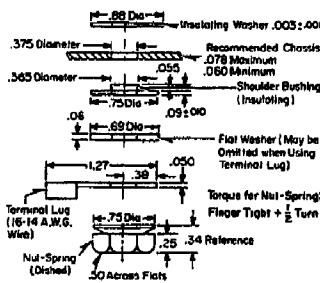
Junction temperature, T_J, °C..... +175

Storage temperature, T_{stg}, °C min..... - 65

max..... +175

* The maximum collector to emitter voltage rating is guaranteed up to the maximum rated power dissipation of the transistor with the base-emitter forward biased.

The maximum collector to emitter voltage rating is below the various "break-down" voltages, BV_{CEO}, BV_{CES}, BV_{CER} and the am = 1 curve in the sustaining region, V_{CE(s)} (zus). Each transistor is power tested within its maximum limits of V_{CE}, P_d and I_C, (e.g. figure 20).



Electrical Characteristics, 2N2757-61 Series T_c=25°C unless otherwise specified

Symbol	Minimum	Typical	Max.	Units
Min. collector-emitter sustaining voltage at I _C =200 mA, I _B =0@.....	V _{CEO(SUS)}	Refer voltage ratings, page 5		
Collector current at V _{CEx} =V _{CE} (Rel. voltage ratings), T _c =175°C, V _{BE} =-1.5 Vdc, I _{CEx}	8	30	mAdc
Emitter current at V _{BE} =-15 Vdc, I _C =0, T _c =175°C.....	I _{EBO}	4	25	mAdc
Saturation voltage at I _C =10 Adc, I _B =2 Adc@.....	V _{CE} (sat)	0.4	1.5	Vdc
Dc current gain at V _{CE} =4 Vdc, I _C =10 Adc@.....	H _{FE}	10	14.0
Base voltage, at I _C =10 Adc, I _B =2 Adc@.....	V _{BE} (sat)	1.35	2.5	Vdc
Beta cut-off frequency at V _{CE} =12 Vdc, I _C =2.5 Adc.....	f _{HC}	14.0	kHz
Turn-on time at I _C =10 Adc, I _{B on} =3 Adc, V _{CE} =12 Vdc.....	t _{on} +t _r	3.0	μsec
Turn-off time at I _C =10 Adc, I _{B off} =-3 Adc, V _{CE off} =12 Vdc, V _{BE off} =-15 Vdc.....	t _s +t _f	9.0	μsec

② Pulsed dc test: pulse duration 300 μsec; duty cycle ≤ 2%.

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