

2N6322 AND 2N6324

30 AMP NPN

HIGH VOLTAGE/HIGH ENERGY

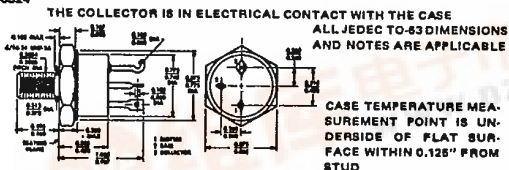
200 VOLTS

SSDII

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La Mirada, California 90638
(213) 921-9660
TWX 910-583-4807
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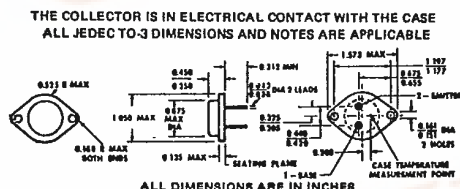
T-33-15

2N6324



ALL DIMENSIONS ARE IN INCHES

2N6322



FEATURES

- MINIMUM BV_{CEO} 200V
- MINIMUM UNCLAMPED ES/B 100mJ
- 200 WATTS AT 100°C CASE TEMPERATURE
- 30 AMP CONTINUOUS COLLECTOR CURRENT
- 200°C OPERATING, GOLD EUTECTIC DIE ATTACH

MAXIMUM RATINGS

Rating	Symbol	Value	Unit
Collector - Emitter Voltage	V _{CEO}	200	Volts
Collector - Base Voltage	V _{CBO}	300	Volts
Emitter - Base Voltage	V _{EBO}	5	Volts
Collector Current	I _C	30	Amps
Base Current	I _B	10	Amps
Total Device Dissipation @ T _C = 100 °C	P _D	200	Watts
Derate above 100 °C			mW/°C
Operating and Storage Temperature	T _J , T _{stg}	-65 to +200	°C

THERMAL CHARACTERISTICS

Characteristics	Symbol	Value	Unit
Thermal Resistance, Junction to Case	R _{θJC}	0.5	°C/W

ELECTRICAL CHARACTERISTICS

Characteristics	Symbol	Min.	Max.	Unit
Collector - Emitter Breakdown Voltage* (I _C = 30 mA dc)	BV _{CEO} *	200		V _{dc}
Collector - Base Breakdown Voltage (I _C = 20 uA dc)	BV _{CBO}	300		V _{dc}
Emitter - Base Breakdown Voltage (I _E = 20 uA dc)	BV _{EBO}	5		V _{dc}

NOTE: All specifications subject to change without notice.

D2274/B3574

7/86

ELECTRICAL CHARACTERISTICS

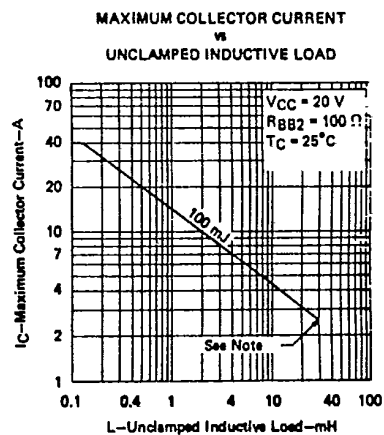
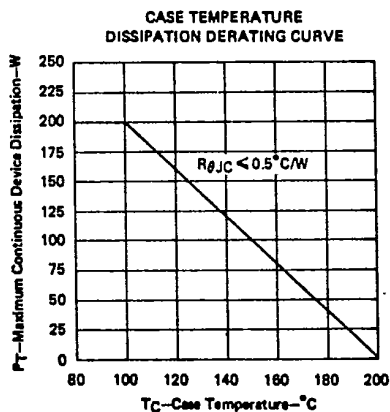
Characteristics	Symbol	Min.	Max.	Unit
Collector Cutoff Current $V_{CE} = 300V$ $V_{BE} = 0V$	I_{CES}		2	mAdc
Collector Cutoff Current ($V_{CE} = 100V$)	I_{CEO}		5	mAdc
Emitter Cutoff Current ($V_{EB} = 5V$)	I_{EBO}		5	mAdc
DC Current Gain* $(I_C = 5 \text{ Adc. } V_{CE} = 5 \text{ Vdc})$ $(I_C = 20 \text{ Adc. } V_{CE} = 5 \text{ Vdc})$ $(I_C = 30 \text{ Adc. } V_{CE} = 5 \text{ Vdc})$	h_{FE}	40 12 6	150	
Collector - Emitter Saturation Voltage* $(I_C = 20 \text{ Adc. } I_B = 2 \text{ Adc})$ $(I_C = 30 \text{ Adc. } I_B = 6 \text{ Adc})$	$V_{CE(sat)}$		1.5 3.0	Vdc
Base - Emitter Voltage* $(I_C = 30 \text{ Adc. } V_{CE} = 5 \text{ V})$	$V_{BE(on)}$ *		2.5	Vdc
Current - Gain - Bandwidth Product $(I_C = 1 \text{ Adc. } V_{CE} = 10 \text{ Vdc. } f = 5 \text{ MHz})$	f_T	10		MHz

SWITCHING TIMES

Delay Time	$(V_{CC} = 40 \text{ Vdc. } V_{EB(Off)} = 3 \text{ Vdc.})$	t_d			
Rise Time	$I_C = 20 \text{ Adc}$	t_r +		800	ns
Storage Time		t_s +			
Fall Time	$I_{B1} = I_{B2} = 2 \text{ Adc}$	t_f		3.0	us
		t_{off}			

*Pulse Test: Pulse width = 300 us, DutyCycle = 2%

TYPICAL OPERATING CURVES



SSDI

SOLID STATE DEVICES, INC.