



PRELIMINARY

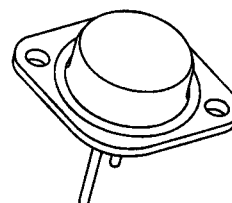
SOLID STATE DEVICES, INC

14849 Firestone Boulevard • La Mirada, CA 90638
Phone: (714) 670-SSDI (7734) • Fax: (714) 522-7424SFT2010/3
SFT2012/3
SFT2014/3

Designer's Data Sheet

FEATURES:

- BV(CBO) 250 Volts minimum
- 600W Power Dissipation
- Excellent SOA Curve
- Es/b of 800mJ
- Gain of over 5 at 200 Amps
- High Rel Construction including Gold Eutectic Die Mounting, Aluminum Wiring
- Planar chip construction with Low Leakage and very Fast Switching

200 AMP
100-140 VOLTS
NPN TRANSISTOR

MAXIMUM RATINGS

CHARACTERISTIC	SYMBOL	VALUE	UNIT
Collector-Emitter Voltage SFT2010 SFT2012 SFT2014	V _{CEO}	100 120 140	V
Collector-Base Voltage	V _{CBO}	250	V
Emitter-Base Voltage	V _{EBO}	8	V
Collector Current	I _C	200	A
Base Current	I _B	75	A
Total Device Dissipation @ TC= 50°C Derate above 50°C	P _D	600 4	W W/°C
Operating and Storage Temperature	T _J , T _{stj}	-65 to +200	°C
Thermal Resistance, Junction to Case	R _{θJC}	0.25	°C/W

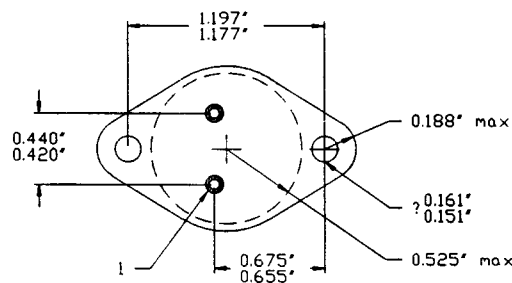
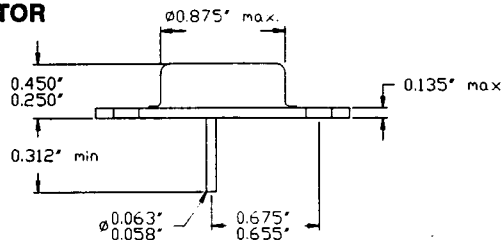
PACKAGE OUTLINE: TO-3

PIN OUT:

PIN 1: BASE

PIN 2: EMITTER

CASE: COLLECTOR



NOTE: All specifications are subject to change without notification. SCD's for these devices should be reviewed by SSDI prior to release.

DATA SHEET: XN0039 C

SFT2010/3
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ELECTRICAL CHARACTERISTICS @ T_J=25° C (Unless Otherwise Specified)

RATING		SYMBOL	MIN	TYP	MAX	UNIT
Collector-Emitter Breakdown Voltage (I _C = 200mA)	SFT2010 SFT2012 SFT2014	BV _{CEO}	100 120 140		---	V
Collector- Base Breakdown Voltage (I _C = 100μA)		BV _{CBO}	250		---	V
Emitter-Base Breakdown Voltage (I _E = 100μA)		BV _{EBO}	8		---	V
Collector Cutoff Current (V _{CB} = 250 Vdc)		I _{CBO}	---		10	μA
Emitter Cutoff Current (V _{EB} = 7 Vdc)		I _{EBO}	---		10	μA
DC Current Gain (I _C = 10 Adc, V _{CE} = 2 Vdc) (I _C = 100 Adc, V _{CE} = 5 Vdc) (I _C = 200 Adc, V _{CE} = 5 Vdc)		HFE	40 30 5		---	
Collector -Emitter Saturation Voltage (I _C = 120 Adc, I _B = 12 Adc) (I _C = 200 Adc, I _B = 30 Adc)		V _{CE(SAT)}	---		2 3	V
Base-Emitter Saturation Voltage (I _C = 120 Adc, I _B = 12 Adc)		V _{BE(SAT)}	---		2.2	V
Current Gain Bandwidth Product (I _C = 1 Adc, V _{CE} = 10 Vdc, f= 10 MHz)		f _T	30		---	MHz
Output Capacitance (V _{CB} = 10 Vdc, I _E = 0 Adc, f=1MHz)		C _{ob}	---		1200	pF
Energy, Secondary Breakdown	I _B =2Adc, V _{BE(off)} =2.0Vdc R _{B1} =R _{B2} =20Ω, L=1mH V _{CLAMP} =110V	E _{s/b}	800		---	mJ
Current, Secondary Breakdown	V _{CE} =6Vdc, I _C = 100A V _{CE} =100Vdc, I _C =0.5A	I _{s/b}	1 1		---	sec
Rise Time Storage Time Fall Time	V _{CC} = 60 Vdc I _C = 30 Adc I _{B1} =I _{B2} = 1 Adc	t _{on} t _s t _f	---		500 1500 400	nsec nsec nsec

For thermal derating curves and other characteristic curves please contact SSDI Marketing Department.

NOTES: