14830 Valley View Avenue
La Mirada, CA 90638
562-404-4474 F# 562-404-1773

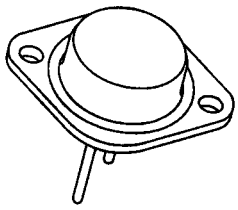
SFT2010/3
SFT2012/3
SFT2014/3

Designer's Data Sheet

200 AMP
100-140 VOLTS
NPN TRANSISTOR

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

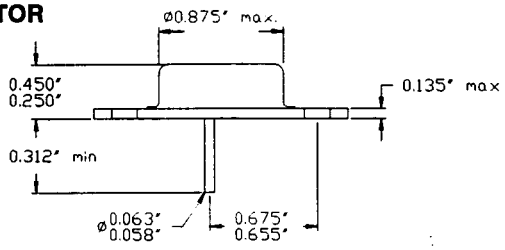


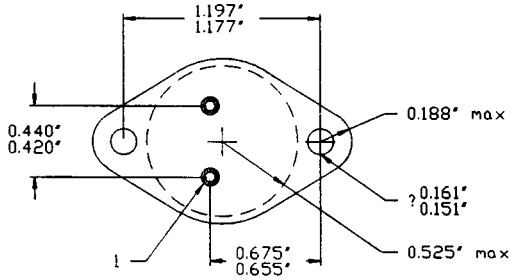
MAXIMUM RATINGS

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		Tj, Tstj	-65 to +200	°C
Thermal Resistance, Junction to Case		$R_{\theta JC}$	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: XN0039D

SFT2010/3
SFT2012/3
SFT2014/3

SOLID STATE DEVICES, INC
14830 Valley View Avenue
La Mirada, CA 90638

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

RATING		SYMBOL	MIN	TYP	MAX	UNIT
Collector-Emitter Breakdown Voltage (IC= 200mAdc)	SFT2010 SFT2012 SFT2014	BV_{CEO}	100 120 140		--- --- ---	V
Collector- Base Breakdown Voltage (IC= 100μAdc)		BV_{CBO}	250		---	V
Emitter-Base Breakdown Voltage (IE = 100μAdc)		BV_{EBO}	8		---	V
Collector Cutoff Current (VCB= 250 Vdc)		I_{CBO}	---		10	μA
Emitter Cutoff Current (VEB = 7 Vdc)		I_{EBO}	---		10	μA
DC Current Gain (IC= 10 Adc, VCE= 2 Vdc) (IC= 100 Adc, VCE= 5 Vdc) (IC= 200 Adc, VCE= 5 Vdc)		HFE	40 30 5		--- --- ---	
Collector -Emitter Saturation Voltage (IC= 120 Adc, IB = 12 Adc) (IC= 200 Adc, IB = 30 Adc)		$V_{CE(SAT)}$	--- ---		2 3	V
Base-Emitter Saturation Voltage (IC= 120 Adc, IB = 12 Adc)		$V_{BE(SAT)}$	---		2.2	V
Current Gain Bandwidth Product (IC= 1 Adc, VCE= 10 Vdc, f= 10 MHz)		fT	50		---	MHz
Output Capacitance (VCB= 10 Vdc, IE= 0 Adc, f=1MHz)		Cob	---		1200	pF
Energy, Secondary Breakdown	IB=2Adc, VBE(off)=2.0Vdc RB1=RB2=20Ω, L=1mH V_{CLAMP}=110V	Es/b	800		---	mJ
Current, Secondary Breakdown	VCE=6Vdc, IC= 100A VCE=100Vdc, IC=0.5A	Is/b	1 1		---	sec
Rise Time Storage Time Fall Time	VCC= 60 Vdc IC= 30 Adc IB1=IB2= 1 Adc	ton ts tf	---- ---- ----		500 1500 400	nsec nsec nsec

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

NOTES: