X00135

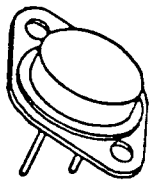
SFT6925A
NPN HIGH VOLTAGE HIGH SPEED POWER TRANSISTOR
60 AMPS, 1000V

SSDI

14849 FIRESTONE BLVD.
LA MIRADA, CA. 90638

(213) 921-9660
FAX (213) 921-2396

CASE STYLE
JEDEC TO-3 WITH .060 PINS



FEATURES

- VERY FAST SWITCHING SPEED (100KHz)
- HIGH VOLTAGE (1000V)
- LOW VCE (SAT) AT IC = 20A
- HIGH CURRENT REPLACEMENT FOR: 2N6678, 2N6921A, 2N6923A, 2N6924A, 2N6925A, MJ16018
- EXTENDED RBSOA & FBSOA (see Fig. 1&2)
- RUGGEDNESS TO SWITCH UP TO 60AMPS @ 500V @ RBSOA

MAXIMUM RATINGS

RATING	SYMBOL	VALUE	UNIT
Collector-Emitter Voltage	VCEO	450	Volts
Collector-Base Voltage	VCBO	1000	Volts
Emitter-Base Voltage	VEBO	9	Volts
Collector Current	IC	60	Amps
Base Current	IB	6	Amps
Total Device Dissipation @ Tc = 25 °C Derate Above 25 °C	PD	175 1	Watts W/ °C
Operating and Storage Temperature	TJ,Tstg	-65 to +200	°C

THERMAL CHARACTERISTICS

CHARACTERISTIC	SYMBOL	VALUE	UNIT
Thermal Resistance, Junction to Case	RθJC	0.63	°C/W

ELECTRICAL CHARACTERISTICS

Characteristics	Symbol	Min	Max	Unit
Collector-Emitter Breakdown Voltage* (IC = 200mAdc)	BVCEO	450		Volts
Collector-Base Breakdown Voltage (IC = 200uAdc)	BVCBO	1000		Volts

Note: Specifications subject to change without notice.

ELECTRICAL CHARACTERISTICS

Characteristics		Symbol	Min	Max	Unit
Emitter-Base Breakdown Voltage (IE = 500μAdc)		BVEBO	9	-	Vdc
Collector Cutoff Current (VCE = 850Vdc)		ICBO	-	1	μAdc
Emitter Cutoff Current (VEB = 5Vdc)		IEBO	-	0.1	μAdc
DC Current Gain* (IC = 5Adc, VCE = 5Vdc) (IC = 20Adc, VCE = 5Vdc) (IC = 30Adc, VCE = 5Vdc)		hFE	15 10 5	- - -	
Collector-Emitter Saturation Voltage* (IC = 10 Adc, IB = 1 Adc) (IC = 20 Adc, IB = 4 Adc)		VCE(SAT)	- -	0.8 1.0	Vdc
Base-Emitter Saturation Voltage* (IC = 10 Adc, IB = 1 Adc) (IC = 20 Adc, IB = 4 Adc)		VBE(SAT)	- -	1.0 1.2	Vdc
Current Gain Bandwidth Product (IC = 1 Adc, VCE = 10 Vdc, f = 1 MHz)		fT	20	-	MHz
Output Capacitance (VCB = 10 Vdc, IE = 0 Adc, f = 1 MHz)		Cob	-	500	pf
Delay Time	IC = 10A IB1 = 1A VBB = -5V RBB = 0.6Ω LC=0.25mH VCLAMP=400V	td	-	0.1	μs
Rise Time		tr	-	0.6	μs
Storage Time		ts	-	2.5	μs
Fall Time		tf	-	0.5	μs

*Pulse Test: Pulse Width = 300μs, Duty Cycle = 2%

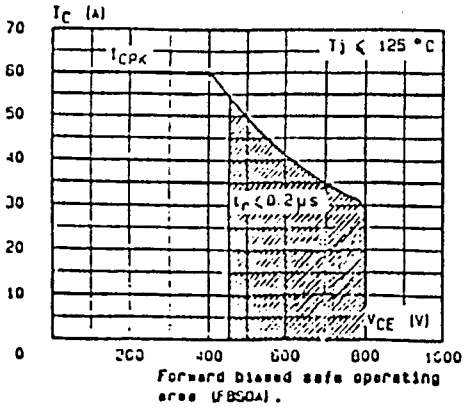


Figure 1

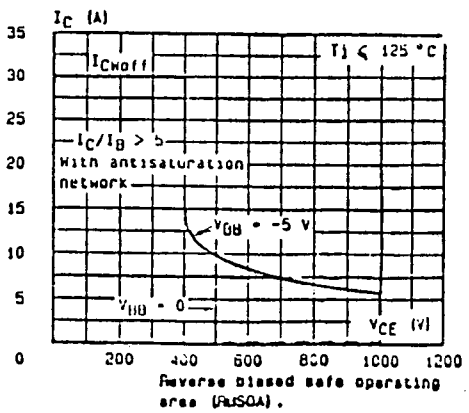


Figure 2

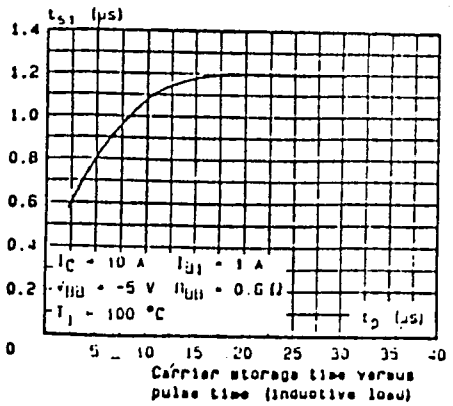


Figure 3

SSDI SOLID STATE DEVICES, INC.
14849 FIRESTONE BOULEVARD, LA MIRADA, CA 90638
Telephone (213) 921-9660 ♦ FAX (213) 921-2396