X00134

SFT815

HIGH ENERGY FAST SWITCHING NPN POWER TRANSISTOR

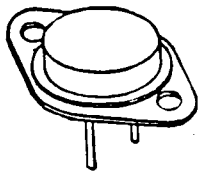
90 AMPS, 300 VOLT

SSDI

14849 FIRESTONE BLVD.
LA MIRADA, CA. 90638
TEL (213) 921-9660
FAX (213) 921-2396

CASE STYLE

JEDEC TO-3 WITH .060 PINS



FEATURES

- HIGH ENERGY
- FAST SWITCHING - tr 300 nsec MAX
- SINGLE CHIP CONSTRUCTION
- VERY LOW SATURATION
- HIGH GAIN TO 90 AMPS
- SUPERIOR PERFORMANCE TO SDT96301-SDT96303
- EUTECTIC DIE ATTACH
- HI-REL CONSTRUCTION

MAXIMUM RATINGS

RATING	SYMBOL	VALUE	UNIT
Collector-Emitter Voltage	VCEO	140	Volts
Collector-Base Voltage	VCBO	300	Volts
Emitter-Base Voltage	VEBO	10	Volts
Collector Current	IC	90	Amps
Base Current	IB	15	Amps
Total Device Dissipation @ Tc = 50 °C Derate Above 50 °C	PD	300 2	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	0.5	°C/W

ELECTRICAL CHARACTERISTICS

Characteristics	Symbol	Min	Max	Unit
Collector-Emitter Breakdown Voltage* (IC = 200mAdc)	BVCEO	140		Volts
Collector-Base Breakdown Voltage (IC = 100uAdc)	BVCBO	300		Volts

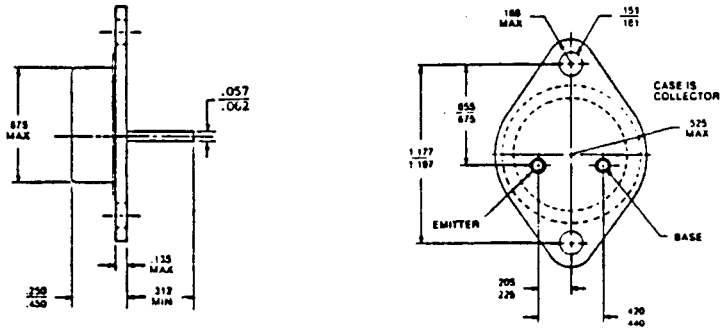
Note: Specifications subject to change without notice.

ELECTRICAL CHARACTERISTICS

Characteristics		Symbol	Min	Max	Unit
Emitter-Base Breakdown Voltage (IE = 100μAdc)		BVEBO	10	-	Vdc
Collector Cutoff Current (VCB = 200Vdc)		ICBO	-	10	μAdc
Emitter Cutoff Current (VEB = 8Vdc)		IEBO	-	10	μAdc
DC Current Gain* (IC = 30Adc, VCE = 5Vdc) (IC = 50Adc, VCE = 5Vdc) (IC = 90Adc, VCE = 5Vdc)		hFE	35 25 15	- - -	
Collector-Emitter Saturation Voltage* (IC = 30 Adc, IB = 3 Adc) (IC = 50 Adc, IB = 5 Adc) (IC = 90 Adc, IB = 9 Adc)		VCE(SAT)	- - -	1.0 1.2 1.8	Vdc
Base-Emitter Saturation Voltage* (IC = 30 Adc, IB = 3 Adc) (IC = 50 Adc, IB = 5 Adc) (IC = 90 Adc, IB = 9 Adc)		VBE(SAT)	- - -	1.2 1.6 2.0	Vdc
Current Gain Bandwidth Product (IC = 1 Adc, VCE = 10 Vdc, f = 1 MHz)		fT	10	-	MHz
Output Capacitance (VCB = 10 Vdc, IE = 0 Adc, f = 1 MHz)		Cob	-	800	pf
Second Breakdown Collector Current (t = 1 sec, non repetitive, VCE = 30V)		IS/B	2		Adc
Delay Time	VCC = 100V, IC = 50A IB1 = IB2 = 1A VBB = -5V	td	-	0.1	μs
Rise Time		tr	-	0.3	μs
Storage Time		ts	-	1.8	μs
Fall Time		tf	-	0.3	μs

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

PHYSICAL DIMENSIONS



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