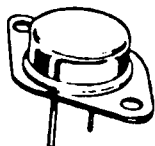


X00127

SFT1618 10 AMP FAST SWITCHING HIGH VOLTAGE NPN TRANSISTOR 1500 VOLTS	SSDI 14849 FIRESTONE BLVD. LA MIRADA, CA 90638 TEL: (213) 921-9660 FAX: (213) 921-2396
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CASE STYLE TO-3

FEATURES



- ▶ BVCEO 800 VOLTS MINIMUM
- ▶ HIGH GAIN FROM 1mA TO 10A
- ▶ VERY LOW LEAKAGE
- ▶ FAST SWITCHING, 500ns ON-TIME
- ▶ GOLD EUTECTIC DIE ATTACH
- ▶ LOW THERMAL RESISTANCE

MAXIMUM RATINGS

RATING	SYMBOL	VALUE	UNIT
Collector-Emitter Voltage	VCEO	800	Volts
Collector-Base Voltage	VCBO	1500	Volts
Emitter-Base Voltage	VEBO	6	Volts
Collector Current	IC	10	Amps
Base Current	IB	8	Amps
Total Device Dissipation @ Tc = 25 °C Derate Above 25 °C	PD	175 1.0	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	1.0	°C/W

ELECTRICAL CHARACTERISTICS

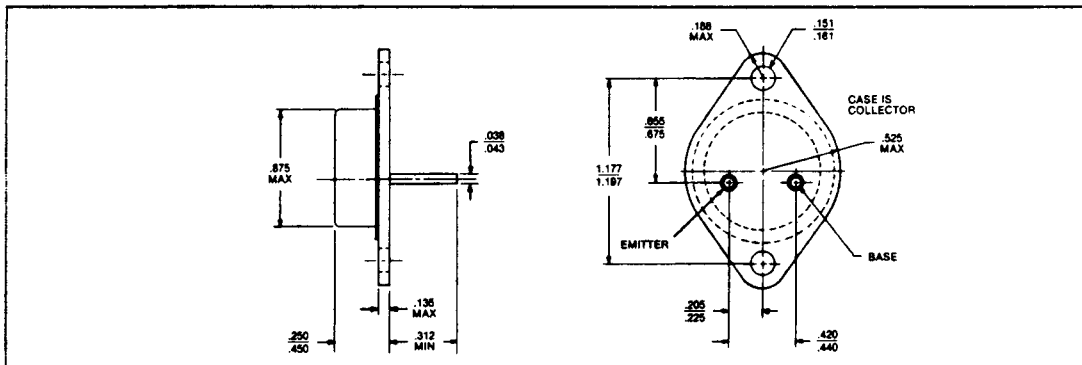
Characteristics	Symbol	Min	Max	Unit
Collector-Emitter Breakdown Voltage* (IC = 100mAdc)	BVCEO	800		Volts
Collector-Base Breakdown Voltage (IC = 1.0MAdc)	BVCBO	1500		Volts

ELECTRICAL CHARACTERISTICS

Characteristics		Symbol	Min	Max	Unit
Emitter-Base Breakdown Voltage ($I_E = 100 \mu\text{A}$)		BVEBO	6		Vdc
Collector Cutoff Current ($V_{CB} = 1500 \text{Vdc}$)		ICBO		250	μA
Emitter Cutoff Current ($V_{EB} = 6 \text{Vdc}$)		IEBO		100	μA
DC Current Gain* ($I_C = 1 \text{A}$, $V_{CE} = 5 \text{Vdc}$) ($I_C = 5 \text{A}$, $V_{CE} = 5 \text{Vdc}$) ($I_C = 10 \text{A}$, $V_{CE} = 5 \text{Vdc}$)		hFE	10 7 5		
Collector-Emitter Saturation Voltage* ($I_C = 5 \text{A}$, $I_B = 1 \text{A}$) ($I_C = 10 \text{A}$, $I_B = 5 \text{A}$)		VCE(SAT)		1.5 4.5	Vdc
Base-Emitter Saturation Voltage* ($I_C = 5 \text{A}$, $I_B = 2 \text{A}$) ($I_C = 5 \text{A}$, $I_B = 2 \text{A}$, $T_C = 100^\circ\text{C}$)		VBE(SAT)		1.5 4.5	Vdc
Current Gain Bandwidth Product ($I_C = 5 \text{A}$, $V_{CE} = 5 \text{Vdc}$, $f = 1 \text{MHz}$)		fT	5		MHz
Output Capacitance ($V_{CB} = 10 \text{Vdc}$, $I_E = 0 \text{A}$, $f = 1 \text{MHz}$)		Cob		400	pf
Delay Time	(IC = 5.0A, VCC = 250Vdc, RB2 = 3.0Ω, IB1 = 1.0A, TB2 = 2.0A, PW = 30μs, Duty Cycle ≤ 2.0%)	td		100	ns
Rise Time		tr		400	ns
Storage Time		ts		3000	ns
Fall Time		tf		1200	ns

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

PHYSICAL DIMENSIONS



SSDI

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SFT1618