



PRELIMINARY

SOLID STATE DEVICES, INC

14849 Firestone Boulevard · La Mirada, CA 90638
Phone: (714) 670-SSDI (7734) · Fax: (714) 522-7424

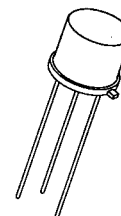
Designer's Data Sheet

FEATURES:

- Radiation Tolerant
- Fast Switching
- High Frequency
- Low Saturation Voltage
- 200°C Operating, Gold Eutectic Die Attach
- Complementary use with SFT5333

SFT4300

**2 AMP
150 VOLTS
NPN TRANSISTOR**



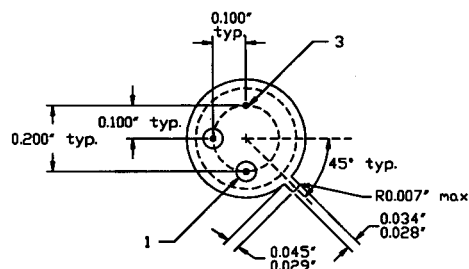
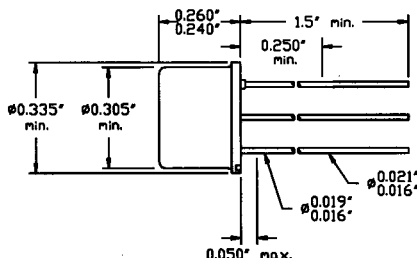
MAXIMUM RATINGS

CHARACTERISTIC	SYMBOL	VALUE	UNIT
Collector-Emitter Voltage	V _{CEO}	80	V
Collector-Base Voltage	V _{CBO}	150	V
Emitter-Base Voltage	V _{EBO}	8	V
Collector Current	I _C	2	A
Base Current	I _B	1	A
Total Device Dissipation @ TC= 100°C Derate above 100°C	P _D	5.6 32.2	W mW/°C
Operating and Storage Temperature	T _j , T _{stg}	-65 to +200	°C
Thermal Resistance, Junction to Case	R _{θJC}	31	°C/W

CASE OUTLINE: TO-5

PIN OUT:

PIN 1: ANODE
PIN 2: ANODE
PIN 3: CATHODE



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

DATA SHEET: XN0029 B

MED

SFT4300**SOLID STATE DEVICES, INC**14849 Firestone Boulevard · La Mirada, CA 90638
Phone: (714) 670-SSDI (7734) · Fax: (714) 522-7424**ELECTRICAL CHARACTERISTICS @ T_J=25°C (Unless Otherwise Specified)**

RATING		SYMBOL	MIN	MAX	UNIT
Collector-Emitter Breakdown Voltage (IC= 30 mAdc)		BV_{CEO}	80	---	V
Collector- Base Breakdown Voltage (IC= 200 µAdc)		BV_{CB0}	150	---	V
Emitter-Base Breakdown Voltage (IE = 200 µAdc)		BV_{EB0}	8	---	V
Collector Cutoff Current (V _{CB} = 90 Vdc)	TA = 25°C TC = 100°C	I_{CBO}	---	1 75	µA
Collector Cutoff Current (V _{CE} = 40 Vdc)		I_{CEO}	---	5	µA
Emitter Cutoff Current (V _{EB} = 6 Vdc)		I_{EBO}	---	1	µA
DC Current Gain* (IC= 1.0 Adc, V _{CE} = 5 Vdc) (IC= 2.0 Adc, V _{CE} = 5 Vdc)		h_{FE}	50 50	200	
Collector -Emitter Saturation Voltage* (IC= 1.0 Adc, I _B = 100 mAdc) (IC= 2.0 Adc, I _B = 200 mAdc)		V_{CE(SAT)}	---	0.3 0.5	V
Base-Emitter Voltage* (IC= 2.0 Adc, V _{CE} = 2 Vdc)		V_{BE(ON)}	---	1.2	V
Current Gain Bandwidth Product (IC= 1.0 Adc, V _{CE} = 5 Vdc, f= 10MHz)		f_T	100	---	MHz
Output Capacitance (V _{CB} = 30 Vdc, I _E = 0 Adc, f=1.0 MHz)		C_{ob}	---	45	pF
Input Capacitance (V _{BE} = 8 Vdc, I _C = 0 Adc, f=1.0 MHz)		C_{ib}	---	225	pF
Turn On Time	(V _{CC} = 20 Vdc, I _C = 1.0 Adc V _{EB(off)} = 3.7 Vdc, I _{B1} = I _{B2} = 100 mAdc, R _L = 20 Ohms	t_(on)	---	130	nsec
Turn Off Time		t_(off)	---	1.5	µsec

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

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