SOLID STATE DEVICES, INC.
14830 Valley View Blvd * La Mirada, Ca 90638
Phone: (562) 404-7855 * Fax: (562) 404-1773
ssdi@ssdi-power.com * www.ssdi-power.com

SFT4300

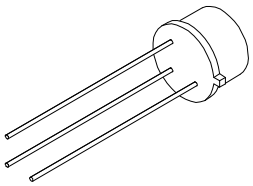
DESIGNER'S DATA SHEET

2 AMP
150 VOLTS
NPN TRANSISTOR

FEATURES:

- Radiation Tolerant
- Fast Switching
- High Frequency
- Low Saturation Voltage
- 200°C Operating, Gold Eutectic Die Attach
- Complementary use with SFT 5333

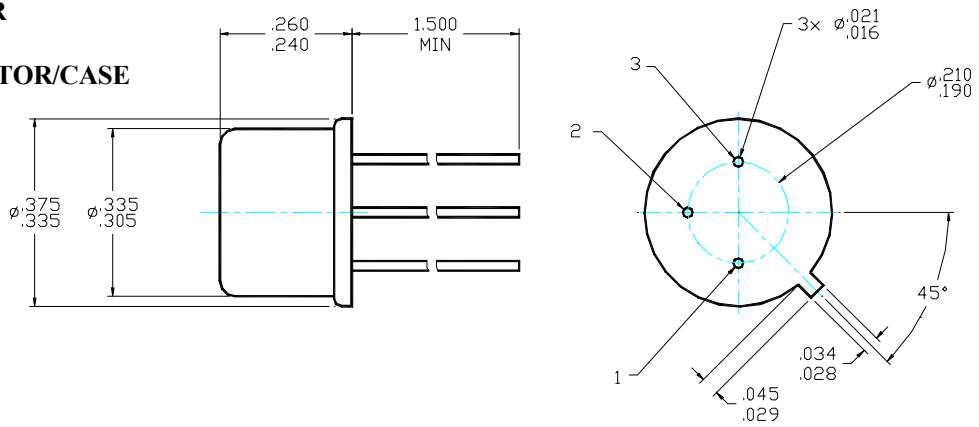
TO-5



MAXIMUM RATINGS	Symbol	Value	Unit
Collector - Emitter Voltage	V_{CEO}	80	Volts
Collector - Base Voltage	V_{CBO}	150	Volts
Emitter - Base Voltage	V_{EBO}	8	Volts
Collector Current	I_C	2	Amps
Base Current Current	I_B	1	Amps
Total Device Dissipation T_C = 100°C Derate above T_C = 100°C	P_D	6.6 66	Watts mW/°C
Operating and Storage Temperature	T_J & T_{STG}	-65 to +200	°C
Thermal Resistance	R_{qJC}	15.2	°C/W

PACKAGE OUTLINE: TO-5

PIN 1: EMITTER
PIN 2: BASE
PIN 3: COLLECTOR/CASE



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

DATA SHEET #: XN0029D

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ELECTRICAL CHARACTERISTICS[1/]		SYMBOL	MIN	MAX	UNIT
Collector-Emitter Breakdown Voltage (I_C = 30 mAdc)		BV_{CEO}	80	-	Volts
Collector-Base Breakdown Voltage (I_C = 200 µAdc)		BV_{CBO}	150	-	Volts
Emitter-Base Breakdown Voltage (I_E = 200 µAdc)		BV_{EBO}	8	-	Volts
Collector Cutoff Current	(V_{CB} = 90 V_{dc}, T_C=25°C) (V_{CB} = 90 V_{dc}, T_C=100°C)	I_{CBO}	- -	1 75	mA mA
Collector Cutoff Current (V_{CE} = 40 V_{dc})		I_{CEO}	-	5	mA
Emitter Cutoff Current (V_{EB} = 6 V_{dc})		I_{EBO}	-	1	mA
DC Current Gain*	I_C = 1.0 A_{dc}, V_{CE} = 5 V_{dc} I_C = 2.0 A_{dc}, V_{CE} = 5 V_{dc}	hFE	50 50	200	
Collector-Emitter Saturation Voltage *	I_C = 1.0 A_{dc}, I_B = 100 mA_{dc} I_C = 2.0 A_{dc}, I_B = 200 mA_{dc}	$V_{CE\ (SAT)}$	- -	0.3 0.5	Volts
Base-Emiter Voltage (I_C = 2 Adc , V_{CE} = 2 Vdc)		$V_{BE\ (ON)}$	-	1.2	Volts
Current Gain Bandwidth Product (I_C = 1.0 Adc , V_{CE} = 5 Vdc, f = 10MHz)		fT	100	-	MHz
Output Capacitance (V_{CB} = 30 Vdc, I_E = 0 Adc, f = 1.0MHz)		Cob	-	45	pF
Input Capacitance (V_{BE} = 8 Vdc, I_C = 0 Adc, f = 1.0MHz)		Cib	-	225	pF
Turn On Time	V_{CC} = 20Vdc , I_C = 1.0 Adc, $V_{EB(off)}$ = 3.7 Vdc	$t_{(on)}$	-	130	nsec
Turn Off Time	I_{B1} = I_{B2} = 100 mAdc, R_L - 20 Ohms	$t_{(off)}$	-	1.5	msec

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

NOTES:

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

1/ T_J =25 °C unless otherwise specified