



Solid State Devices, Inc.

14701 Firestone Blvd * La Mirada, CA 90638
Phone: (562) 404-4474 * Fax: (562) 404-1773
ssdi@ssdi-power.com * www.ssdi-power.com

SFT4300A

2 AMP, 150 Volts NPN Transistor

DESIGNER'S DATA SHEET

Part Number / Ordering Information ^{1/}

SFT4300A

└ Screening ^{2/}

— = Not Screened

TX = TX Level

TXV = TXV Level

S = S Level

└ Package = TO-5

FEATURES:

- Radiation Tolerant
- Fast Switching
- High Frequency
- Low Saturation Voltage
- 200°C Operating, Gold Eutectic Die Attach
- Complementary use with SFT5333A

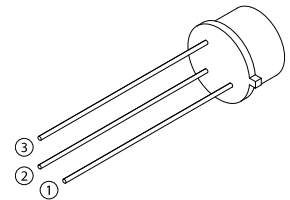
Maximum Ratings	Symbol	Value	Units
Collector – Emitter Voltage	V_{CEO}	80	V
Collector – Base Voltage	V_{CBO}	150	V
Emitter – Base Voltage	V_{EBO}	8	V
Collector Current	I_C	2	A
Base Current	I_B	1	A
Total Device Dissipation @ TC = 100° C Derate above TC = 100° C	P_D	15 150	W mW/°C
Operating and Storage Temperature	T_j, T_{stg}	-65 to +200	°C
Thermal Resistance, Junction to Case	$R_{\theta JC}$	7	°C/W

NOTES:

^{1/} For ordering information, price, operating curves, and availability - contact factory.

^{2/} Screening based on MIL-PRF-19500. Screening flows available on request.

TO-5



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

DATA SHEET #: TR0046C

DOC

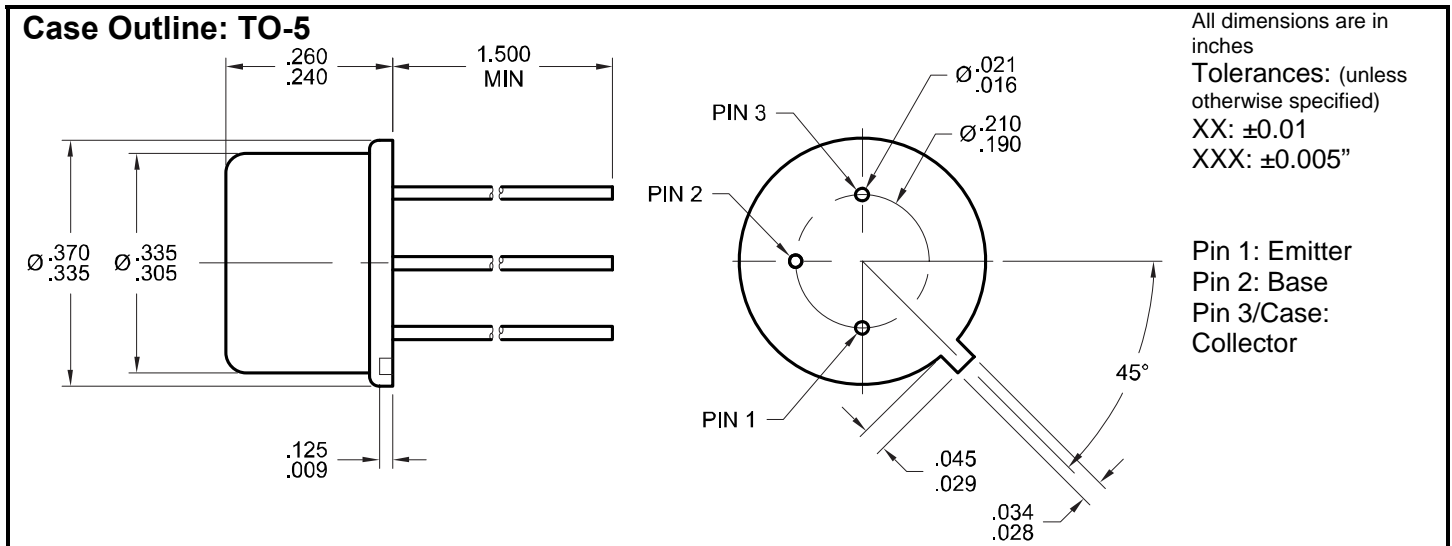


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Electrical Characteristic	Symbol	Min	Max	Units
Collector – Emitter Breakdown Voltage (IC= 30mAdc)	BV_{CEO}	80	—	V
Collector–Base Breakdown Voltage (IC= 200 μ Adc)	BV_{CBO}	150	—	V
Emitter–Base Breakdown Voltage (IE= 200 μ Adc)	BV_{EBO}	6	—	V
Collector Cutoff Current (VCB= 90V, TC= 25°C) (VCB= 90V, TC= 100°C)	I_{CBO}	—	1 75	μ Adc
Collector Cutoff Current (VCE= 40 Vdc)	I_{CEO}	—	5	μ Adc
Emitter Cutoff Current (VEB= 6V)	I_{EBO}	—	1	μ Adc
DC Current Gain* (IC= 1.0Adc, VCE= 5Vdc) (IC= 2.0Adc, VCE= 5Vdc)	h_{FE}	50 50	200	
Collector – Emitter Saturation Voltage* (IC= 1.0Adc, IB= 100mAdc) (IC= 2.0Adc, IB= 200mAdc)	$V_{CE(Sat)}$	—	0.3 0.5	Vdc
Base – Emitter Voltage (IC= 2.0Adc, VCE= 2Vdc)	$V_{BE(ON)}$	—	1.2	Vdc
Current Gain Bandwidth Product (IC= 0.5Adc, VCE= 5Vdc, f= 10MHz)	f_T	80	—	MHz
Output Capacitance (VCB= 30Vdc, IE= 0 Adc, f= 1.0MHz)	C_{ob}	—	45	pF
Input Capacitance (VBE= 8Vdc, IC= 0 Adc, f= 1.0MHz)	C_{ib}	—	225	pF
Turn On Time	VCC = 20Vdc, IC = 1.0Adc, VEB(off) = 3.7Vdc IB1 = IB2 = 100mAdc, RL – 20 Ohms	---	130	nsec
Turn Off Time				



Notes:

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

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