



Solid State Devices, Inc.

14701 Firestone Blvd * La Mirada, Ca 90638
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DESIGNER'S DATA SHEET

Part Number / Ordering Information ^{1/}

SFT5553A

Screening ^{2/} ___ = Not Screen
 TX = TX Level
 TXV = TXV Level
 S = S Level

Polarity ___ = Normal
 R = Reverse

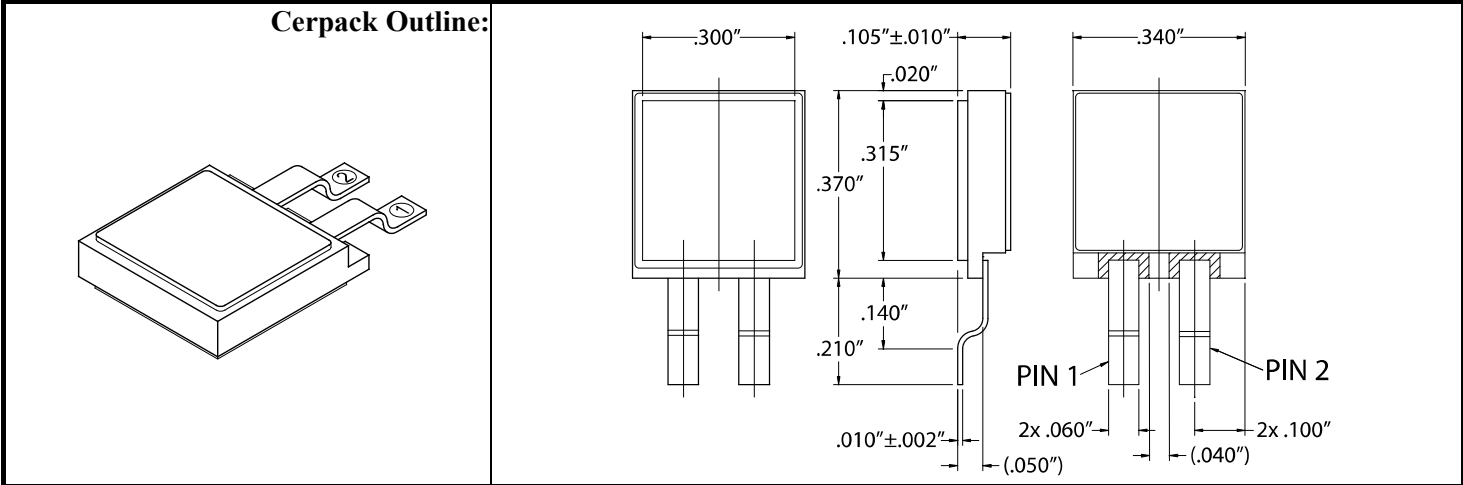
Package /G = Cerpack

**SFT5553A/G
Series**

**5 AMP
100 Volts
PNP Power Transistor**

- Features:**
- **BV_{CEO} 80V**
 - **Fast Switching**
 - **Very High Gain**
 - **Low Saturation Voltage**
 - **200 °C Operating Temperature**
 - **Gold Eutectic Die Attach**
 - **TX, TXV, S-Level Screening Available**

Maximum Ratings	Symbol	Value	Units
Collector – Base Voltage	BV _{CBO}	100	Volts
Collector – Emitter Voltage	BV _{CEO}	80	Volts
Emitter – Base Voltage	BV _{EBO}	6.0	Volts
Continuous Collector Current	I _C	5.0	Amps
Base Current	I _B	2.0	Amps
Power Dissipation @ T _C ≤ 100°C Derate above 100°C	P _D	40 0.4	W W/°C
Operating & Storage Temperature	Top & Tstg	-65 to +200	°C
Thermal Resistance, Junction to Case	R _{θJC}	1.8	°C/W



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

DATA SHEET #: TR0015E



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**SFT5553A/G
 Series**

Electrical Characteristics ^{3/}		Symbol	Min	Max	Units
Collector – Emitter Breakdown Voltage	$I_C = 100 \mu A_{DC}$	BV_{CEO}	80	—	Volts
Collector – Base Breakdown Voltage	$I_C = 100 \mu A_{DC}$	BV_{CBO}	100	—	Volts
Emitter – Base Breakdown Voltage	$I_E = 20 \mu A_{DC}$	BV_{EBO}	6	—	Volts
Emitter – Cutoff Current	$V_{EB} = 5 V_{DC}$	I_{EBO}	—	10	μA
Collector – Cutoff Current	$V_{CB} = 100 V_{DC}$	I_{CBO}	—	10	μA
Collector – Cutoff Current	$V_{CE} = 80 V_{DC}$	I_{CEO}	—	100	μA
DC Current Gain *	$V_{CE} = 1.1V_{DC}, I_C = 1.0A_{DC}$ $V_{CE} = 1.32V_{DC}, I_C = 2.5A_{DC}$ $V_{CE} = 2.2V_{DC}, I_C = 5.0A_{DC}$	H_{FE}	80 55 25	220 150 120	—
Collector – Emitter Saturation Voltage *	$I_C = 2.5A_{DC}, I_B = 0.2A_{DC}$	$V_{CE(SAT)}$	—	0.5	V_{DC}
Base – Emitter Saturation Voltage *	$I_C = 2.5A_{DC}, I_B = 0.2A_{DC}$	$V_{BE(SAT)}$	—	1.1	V_{DC}
Base – Emitter On Voltage *	$I_C = 2.5A_{DC}, V_{CE} = 1.3V_{DC}$	$V_{BE(ON)}$	—	0.95	V_{DC}
Current Gain Bandwidth Product	$I_C = 50mA_{DC}, V_{CE} = 10V_{DC}, f = 20MHz$	f_T	40	—	MHz
Output Capacitance	$V_{CB} = 30V_{DC}, I_E = 0A_{DC}, f = 1.0MHz$	c_{ob}	—	120	pF
Turn On Time	$V_{CC} = 200V_{DC}, I_C = 1.0A_{DC},$	$t_{(on)}$	—	200	nsec
Turn Off Time	$I_{B1} = I_{B2} = 100mA_{DC}, R_{B1} = R_{B2} = 40\Omega$	$t_{(off)}$	—	1500	nsec

<p>NOTES:</p> <p>* Pulse Test: Pulse Width = 300μsec, Duty Cycle = 2%</p> <p>1/ For Ordering Information, Price, and Availability Contact Factory.</p> <p>2/ Screening per MIL-PRF-19500</p>	<p>3/ Unless Otherwise Specified, All Electrical Characteristics @25°C.</p>
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<p>Available Part Numbers:</p> <p>SFT5553A/G SFT5553A/GR</p>
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PIN ASSIGNMENT (Standard)				
Code	Function	Base	PIN 1	PIN 2
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R	Reverse	Collector	Base	Emitter