



Solid State Devices, Inc.

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DESIGNER'S DATA SHEET

Part Number / Ordering Information^{1/}

SFT1192 S.5

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

Package
 S.5 = SMD.5

SFT1192S.5

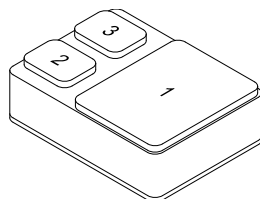
**2 AMP
500 VOLTS
PNP TRANSISTOR**

FEATURES:

- BV_{CEO} 400 V minimum
- Fast Switching: 250 ns max t(on)
- High Frequency: minimum 50 MHz
- Low Saturation Voltage
- 200°C Operating, Gold Eutectic Die Attach
- Designed for Complementary Use with SFT6800

MAXIMUM RATINGS	Symbol	Value	Unit
Collector – Emitter Voltage	V_{CEO}	400	V
Collector – Base Voltage	V_{CBO}	500	V
Emitter – Base Voltage	V_{EBO}	10	V
Collector Current	I_C	2	A
Base Current	I_B	0.5	A
Total Device Dissipation @ $T_c = 175^\circ\text{C}$ Derate above 175°C	P_D	5 200	W mW/°C
Operating and Storage Temperature Range	T_J & T_{STG}	-65 to +200	°C
Thermal Resistance, Junction to Case	$R_{\theta JC}$	5.0	°C/W

FIGURE 1: OUTLINE AND DIMENSIONS



PACKAGE OUTLINE:

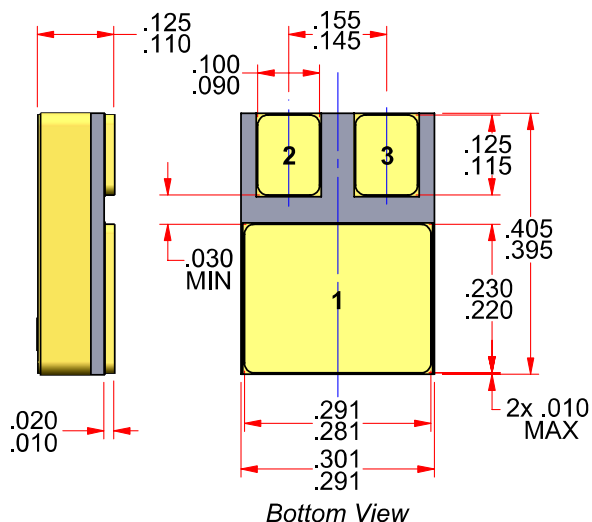
SMD.5

PINOUT:

Pin 1: Collector
Pin 2: Emitter
Pin 3: Base

All dimensions are in inches
Tolerances: (unless otherwise specified)
XX: ± 0.01 "
XXX: ± 0.005 "

SMD.5 (S.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 #: TR0082B

DOCX



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SFT1192S.5

ELECTRICAL CHARACTERISTICS		Symbol	Min	Max	Unit
Collector – Emitter Breakdown Voltage (I _C = 5 mA)		BV _{CEO}	400	—	V
Collector – Base Breakdown Voltage (I _C = 100 μA _{DC})		BV _{CBO}	500	—	V
Emitter – Base Breakdown Voltage (I _E = 20 μA _{DC})		BV _{EBO}	10	—	V
Collector Cutoff Current (V _{CB} = 450 V _{DC})		I _{CBO}	—	1.0	μA
Collector Cutoff Current (V _{CE} = 400 V _{DC} , V _{EB} = 1.5 V _{DC})		I _{CEV}	—	10	μA
Emitter Cutoff Current (V _{EB} = 6 V _{DC})		I _{EBO}	—	10	μA
DC Current Gain* (I _C = 1.0 mA _{DC}) (I _C = 50 mA _{DC}) (I _C = 500 mA _{DC}) (V _{CE} = 10 V _{DC})		H _{FE}	80 60 40	— — —	
Collector – Emitter Saturation Voltage* (I _C = 50 mA _{DC} , I _B = 5 mA _{DC}) (I _C = 500 mA _{DC} , I _B = 50 mA _{DC})		V _{CE(SAT)}	— —	0.4 1.0	V _{DC}
Base – Emitter Saturation Voltage* (I _C = 50 mA _{DC} , I _B = 5 mA _{DC}) (I _C = 500 mA _{DC} , I _B = 50 mA _{DC})		V _{BE(SAT)}	— —	1.5 2.0	V _{DC}
Current Gain Bandwidth Product (I _C = 70 mA _{DC} , V _{CE} = 30 V _{DC} , f = 20 MHz)		f _T	50	—	MHz
Output Capacitance (V _{CB} = 20 V _{DC} , I _E = 0 A _{DC} , f = 1.0 MHz)		C _{ob}	—	75	pf
Input Capacitance (V _{EB} = 2 V _{DC} , I _C = 0 A _{DC} , f = 1.0 MHz)		C _{ib}	—	300	pf
Turn On Time	(V _{CC} = 100 V _{DC} , I _C = 500 mA _{DC} , V _{EB(OFF)} = 3.7 V _{DC} I _{B1} = I _{B2} = 50 mA _{DC})	t _(on)	—	250	ns
Turn Off Time		t _(off)	—	2500	ns
*Pulse Test: Pulse Width = 300 μsec, Duty Cycle = 2%					
For thermal derating curves and other characteristic curves please contact SSDI Marketing Department.					

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