PRELIMINARY

SFT6800

SOLID STATE DEVICES, INC.
14005 Stage Road * Santa Fe Springs, Ca 90670
Phone: (562) 404-4474 * Fax: (562) 404-1773

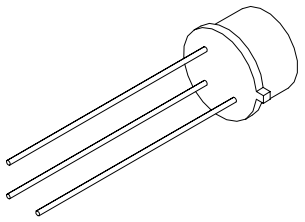
DESIGNER'S DATA SHEET

2 AMP
500 VOLTS
NPN TRANSISTOR

FEATURES:

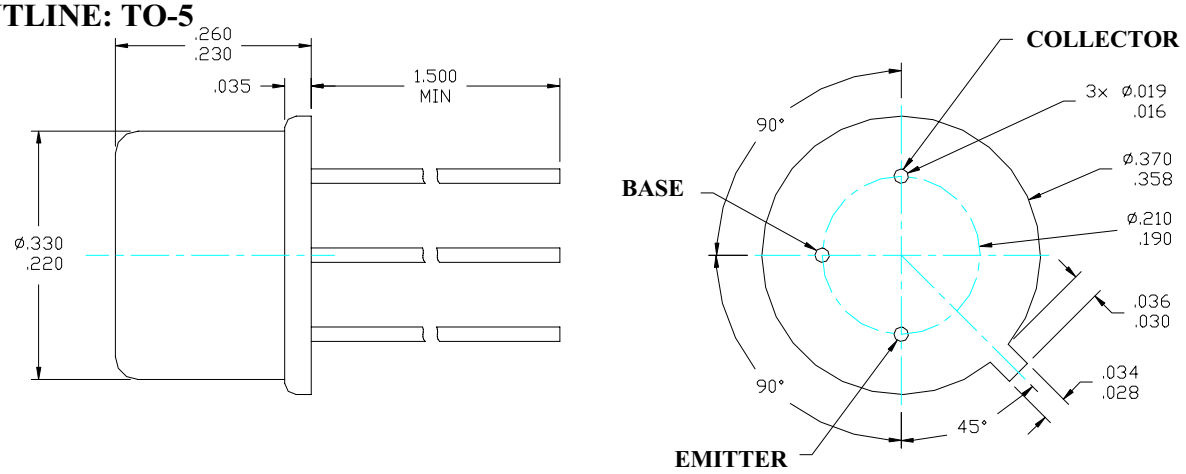
- BV_{CEO} 400V.
- Fast Switching.
- Very Low Leakage.
- Low Saturation Voltage.
- 200°C Operating, Gold Eutectic Die Attach.
- Designed for Complementary Use with SFT1192.

TO-5



MAXIMUM RATINGS	SYMBOL	VALUE	UNITS
Collector-Emitter Voltage	V_{CEO}	400	Volts
Collector-Base Voltage	V_{CBO}	500	Volts
Emitter-Base Voltage	V_{EBO}	10	Volts
Collector Current	I_C	2	Amps
Base Current	I_B	0.5	Amps
Total Device Dissipation @ T_C=100°C Derate above 100°C	P_D	6.67 150	W mW/°C
Operating and Storage Temperature	T_J, T_{STG}	-65 to +200	°C
Thermal Resistance, Junction to Case	$R_{\theta JC}$	15	°C/W

CASE OUTLINE: 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 #: TR0005B

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ELECTRICAL CHARACTERISTICS		SYMBOL	MIN	MAX	UNITS
Collector-Emitter Breakdown Voltage (I_C = 20mA$_{DC}$)		BV_{CEO}	400	-	V
Collector-Base Breakdown Voltage (I_C = 100uA$_{DC}$)		BV_{CBO}	500	-	V
Emitter-Base Breakdown Voltage (I_E = 20uA$_{DC}$)		BV_{EBO}	10	-	V
Collector Cutoff Current (V_{CB} = 400V$_{DC}$)		I_{CBO}	-	200	nA
Collector Cutoff Current (V_{CE} = 400V$_{DC}$, V_{EB} = 1.5V$_{DC}$)		I_{CEV}	-	200	nA
Emitter Cutoff Current (V_{EB} = 6V$_{DC}$)		I_{EBO}	-	200	nA
DC Current Gain* (V_{CE} = 5V$_{DC}$)	(I_C = 50mA$_{DC}$) (I_C = 500mA$_{DC}$) (I_C = 1.0A$_{DC}$)	H_{FE}	50 40 15	- - -	
Collector-Emitter Saturation Voltage* (I_C = 500mA$_{DC}$, I_B = 50mA$_{DC}$)		$V_{CE(SAT)}$	-	500	mV$_{DC}$
Base-Emitter Saturation Voltage* (I_C = 500mA$_{DC}$, I_B = 50mA$_{DC}$)		$V_{BE\ (SAT)}$	-	1.0	V$_{DC}$
Current Gain Bandwidth Product (I_C = 50mA$_{DC}$, V_{CE} = 10V$_{DC}$, f = 20MHz)		fT	25	-	MHz
Output Capacitance (V_{CB}= 30V$_{DC}$, I_E = 0A$_{DC}$, f = 2.0MHz)		C_{ob}	-	40	pf
Turn On Time	(V_{CC} = 330V$_{DC}$, I_C = 500mA$_{DC}$, I_{B1} = I_{B2} = 100mA$_{DC}$ R_{B1} = R_{B2} = 330Ω)	$t_{(on)}$	-	700	ns
Turn Off Time		$t_{(off)}$	-	2000	ns

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