



SOLID STATE DEVICES, INC.

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SFT1192/59

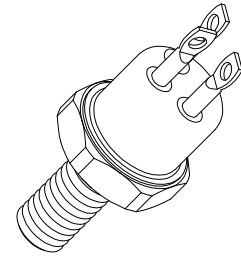
**2 AMP
 500 VOLTS
 PNP TRANSISTOR**

DESIGNER'S DATA SHEET

FEATURES:

- **BV_{CEO} 400V.**
- **Fast Switching.**
- **High Frequency.**
- **Low Saturation Voltage.**
- **200°C Operating, Gold Eutectic Die Attach.**
- **Designed for Complementary Use with SFT6800.**

TO-59

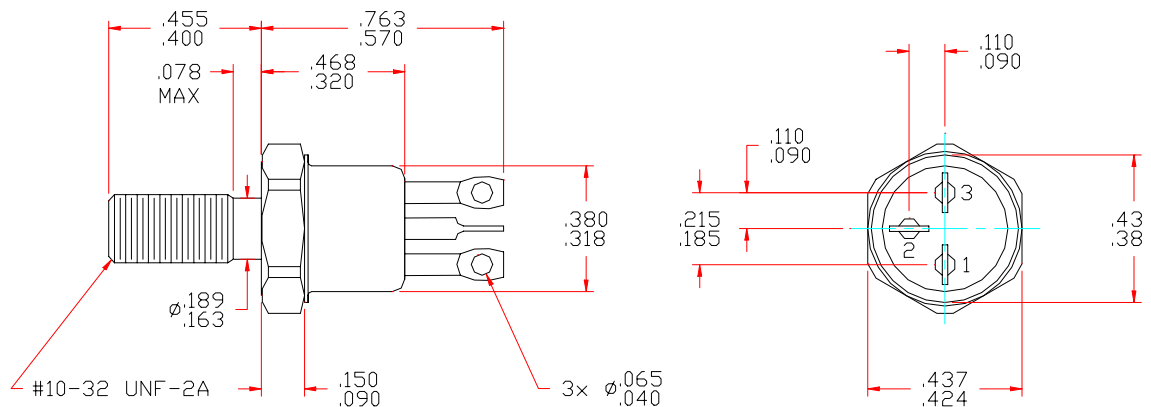


MAXIMUM RATINGS	SYMBOL	VALUE	UNITS
Collector-Emitter Voltage $R_{BE} = 1 \text{ k}\Omega$	V_{CEO} V_{CER}	400 500	Volts
Collector-Base Voltage	V_{CBO}	500	Volts
Emitter-Base Voltage	V_{EBO}	10	Volts
Collector Current	I_C	2	Amps
Base Current	I_B	0.5	Amps
Total Device Dissipation @ $T_C=100^\circ\text{C}$ Derate above 25°C	P_D	20 133	W mW/°C
Operating and Storage Temperature	T_J, T_{STG}	-65 to +200	°C
Thermal Resistance, Junction to Case	$R_{\theta JC}$	7.5	°C/W

CASE OUTLINE: TO-59

Pin Out:

- 1 - Collector**
- 2 - Base**
- 3 - Emmitter**



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

DATA SHEET #: TR0008C

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ELECTRICAL CHARACTERISTICS		SYMBOL	MIN	MAX	UNITS
Collector-Emitter Breakdown Voltage ($I_C = 5\text{mA}_{DC}$) ($I_C = 100\text{mA}_{DC}$, $R_{BE} = 1\text{k}\Omega$)		BV_{CEO}	400	-	V
		BV_{CER}	500	-	V
Collector-Base Breakdown Voltage ($I_C = 100\mu\text{A}_{DC}$)		BV_{CBO}	500	-	V
Emitter-Base Breakdown Voltage ($I_E = 20\mu\text{A}_{DC}$)		BV_{EBO}	10	-	V
Collector Cutoff Current ($V_{CB} = 450\text{V}_{DC}$)		I_{CBO}	-	1.0	μA
Collector Cutoff Current ($V_{CE} = 400\text{V}_{DC}$, $V_{EB} = 1.5\text{V}_{DC}$)		I_{CEV}	-	10	μA
Emitter Cutoff Current ($V_{EB} = 6\text{V}_{DC}$)		I_{EBO}	-	10	μA
DC Current Gain* ($V_{CE} = 10\text{V}_{DC}$)	($I_C = 1.0\text{mA}_{DC}$)	H_{FE}	80	-	
	($I_C = 50\text{mA}_{DC}$)		60	-	
	($I_C = 500\text{mA}_{DC}$)		40	-	
Collector-Emitter Saturation Voltage* ($I_C = 50\text{mA}_{DC}$, $I_B = 5\text{mA}_{DC}$) ($I_C = 500\text{mA}_{DC}$, $I_B = 50\text{mA}_{DC}$)		$V_{CE(SAT)}$	-	0.4	V_{DC}
			-	2.0	
Base-Emitter Saturation Voltage* ($I_C = 50\text{mA}_{DC}$, $I_B = 5\text{mA}_{DC}$) ($I_C = 500\text{mA}_{DC}$, $I_B = 50\text{mA}_{DC}$)		$V_{BE(SAT)}$	-	1.5	V_{DC}
			-	2.0	
Current Gain Bandwidth Product ($I_C = 70\text{mA}_{DC}$, $V_{CE} = 30\text{V}_{DC}$, $f = 20\text{MHz}$)		f_T	50	-	MHz
Output Capacitance ($V_{CB} = 20\text{V}_{DC}$, $I_E = 0\text{A}_{DC}$, $f = 1.0\text{MHz}$)		C_{ob}	-	75	pf
Input Capacitance ($V_{BE} = 2\text{V}_{DC}$, $I_C = 0\text{A}_{DC}$, $f = 1.0\text{MHz}$)		C_{ib}	-	300	pf
Turn On Time	($V_{CC} = 100\text{V}_{DC}$, $I_C = 500\text{mA}_{DC}$, $V_{EB(OFF)} = 3.7\text{V}_{DC}$, $I_{B1} = I_{B2} = 50\text{mA}_{DC}$)	$t_{(on)}$	-	250	ns
Turn Off Time		$t_{(off)}$	-	2500	ns

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