



SOLID STATE DEVICES, INC.

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SFT1192/59

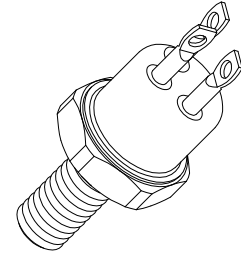
**2 AMP
 500 VOLTS
 PNP TRANSISTOR**

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

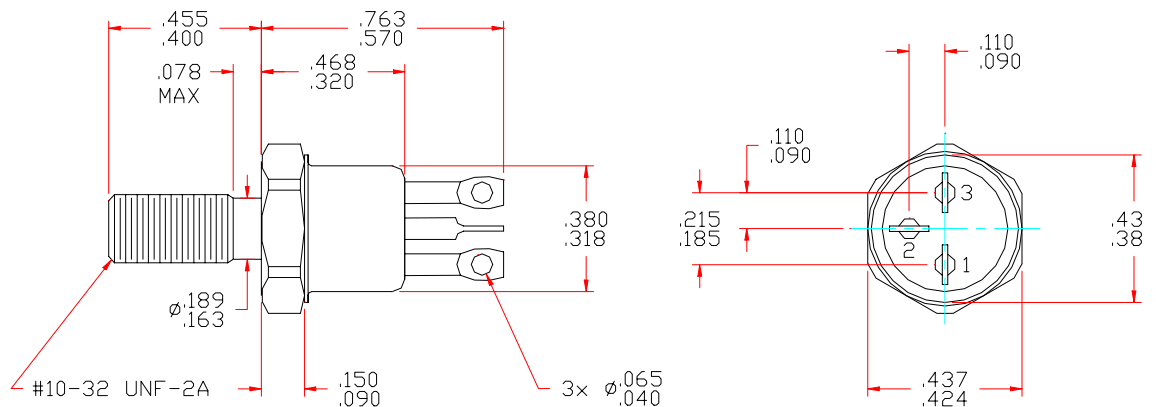


MAXIMUM RATINGS	SYMBOL	VALUE	UNITS
Collector-Emitter Voltage $R_{BE} = 1 \text{ k}\Omega$	V_{CEO} V_{CER}	400 500	Volts
Collector-Base Voltage	V_{CBO}	500	Volts
Emitter-Base Voltage	V_{EBO}	10	Volts
Collector Current	I_C	2	Amps
Base Current	I_B	0.5	Amps
Total Device Dissipation @ $T_C=100^\circ\text{C}$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

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

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