SOLID STATE DEVICES, INC.
14830 Valley View Avenue * La Mirada, Ca 90638
Phone: (562) 404-4474 * Fax: (562) 404-1773

SFT5333A

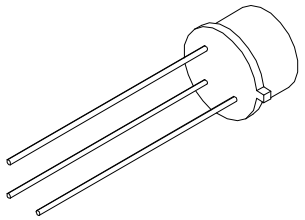
2 AMP
100 VOLTS
HIGH SPEED
PNP TRANSISTOR

DESIGNER'S DATA SHEET

FEATURES:

- **Radiation Tolerant**
- **Fast Switching, 150ns MAX t(on)**
- **High Frequency, fT 85MHz MIN.**
- **BVCEO 70Volts MIN.**
- **Low Saturation Voltage.**
- **200°C Operating, Gold Eutectic Die Attach.**
- **Designed for Complementary Use with SFT4300A.**

TO-5



MAXIMUM RATINGS	SYMBOL	VALUE	UNITS
Collector-Emitter Voltage	V_{CEO}	70	Volts
Collector-Base Voltage	V_{CBO}	100	Volts
Emitter-Base Voltage	V_{EBO}	6	Volts
Collector Current	I_C	2	Amps
Base Current	I_B	1	Amps
Total Device Dissipation @ T_C=100°C Derate above 100°C	P_D	15 150	W mW/°C
Operating and Storage Temperature	T_J, T_{STG}	-65 to +200	°C
Thermal Resistance, Junction to Case	$R_{\theta JC}$	6.6	°C/W

ELECTRICAL CHARACTERISTICS	SYMBOL	MIN	MAX	UNITS
Collector-Emitter Breakdown Voltage (I_C =30mA$_{DC}$)	BV_{CEO}	70	-	V
Collector-Base Breakdown Voltage (I_C =200uA$_{DC}$)	BV_{CBO}	100	-	V
Emitter-Base Breakdown Voltage (I_E =200uA$_{DC}$)	BV_{EBO}	6	-	V
Collector Cutoff Current (V_{CB} =90V$_{DC}$, T_C=25°C) (V_{CB} =90V$_{DC}$, T_C=100°C)	I_{CBO}	-	1 75	mA mA
Collector Cutoff Current (V_{CE} =40V$_{DC}$)	I_{CEO}	-	5	mA

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

DATA SHEET #: TR0054B

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ELECTRICAL CHARACTERISTICS		SYMBOL	MIN	MAX	UNITS
Emitter Cutoff Current (V_{EB} =6V_{DC})		I_{EBO}	-	1	mA
DC Current Gain * (I_C =1.0A_{DC} , V_{CE} =5V_{DC}) (I_C =2.0A_{DC} , V_{CE} =5V_{DC})		H_{FE}	40 40	250	
Collector-Emitter Saturation Voltage * (I_C =1.0A_{DC} , I_B =100mA_{DC}) (I_C =2.0A_{DC} , I_B =200mA_{DC})		$V_{CE(SAT)}$		0.45 1.0	V_{DC}
Base-Emitter Voltage * (I_C =2.0A_{DC} , V_{CE} =4V_{DC})		$V_{BE\,(ON)}$	-	1.5	V_{DC}
Current Gain Bandwidth Product (I_C =1.0A_{DC} , V_{CE} =10V_{DC}, f =10MHz)		fT	85	-	MHz
Output Capacitance (V_{CB}=30V_{DC} , I_E =0A_{DC}, f =1.0MHz)		C_{ob}	-	75	pf
Input Capacitance (V_{BE}=6V_{DC} , I_C =0A_{DC}, f =1.0MHz)		C_{ib}	-	300	pf
Turn On Time	(V_{CC} =20V_{DC} , I_C =1.0A_{DC}, $V_{EB(OFF)}$=3.7V_{DC}, I_{B1}=I_{B2}=100mA_{DC}, R_L=20 Ohms)	$t_{(on)}$		150	ns
Turn Off Time		$t_{(off)}$		450	ns

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

CASE OUTLINE: TO-5

PIN 1: EMITTER
PIN 2: BASE
PIN 3: COLLECTOR