



PRELIMINARY

**SOLID STATE DEVICES, INC.**

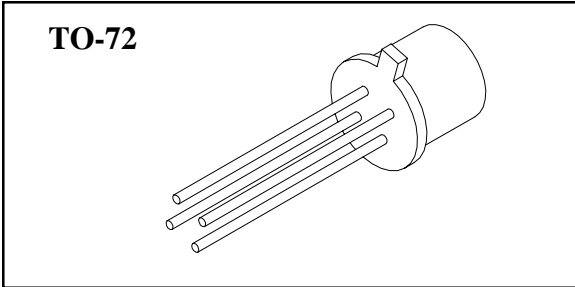
14005 Stage Road \* Santa Fe Springs, Ca 90670  
Phone: (562) 404-4474 \* Fax: (562) 404-1773

**SFT4959**

**30mA  
18 VOLTS  
PNP TRANSISTOR**

**Designer's Data Sheet**

- FEATURES:**
- PNP Silicon Annular Transistor
  - High Speed
  - High Frequency
  - Low Noise



Maximum Ratings	SYMBOL	VALUE	UNITS
Collector-Emitter Voltage	$V_{CEO}$	18	Volts
Collector-Base Voltage	$V_{CBO}$	25	Volts
Emitter-Base Voltage	$V_{EBO}$	3	Volts
Collector Current	$I_C$	30	mA
Total Device Dissipation @ $T_C=100^{\circ}C$ Derate above $100^{\circ}C$	$P_D$	.2 1.14	W mW/ $^{\circ}C$
Operating and Storage Temperature	$T_J, T_{STG}$	-65 to +200	$^{\circ}C$
Thermal Resistance, Junction to Case	$R_{\theta JC}$	.87	$^{\circ}C/mW$

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

**DATA SHEET #: TR0001A**

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Electrical Characteristics *	SYMBOL	MIN	MAX	UNITS
Collector-Emitter Breakdown Voltage ( $I_C = 1\text{mA}_{dc}$ )	$BV_{CEO}$	18	-	V
Collector-Base Breakdown Voltage ( $I_C = 0.1\text{mA}_{dc}$ )	$BV_{CBO}$	25	-	V
Emitter-Base Breakdown Voltage ( $I_E = 0.1\text{mA}_{dc}$ )	$BV_{EBO}$	3	-	V
Collector Cutoff Current ( $V_{CB} = 10\text{V}_{dc}$ )	$I_{CBO}$	-	0.1	$\mu\text{A}$
Forward Current Transfer Ratio ( $I_C = 2\text{mA}$ , $V_{CE} = 10\text{V}_{dc}$ )	$h_{FE}$	20	200	
Current Gain Bandwidth Product ( $I_C = 10\text{mA}$ , $V_{CE} = 10\text{V}_{dc}$ , $f = 100\text{ MHz}$ )	$f_T$	1000	-	MHz
Collector-Base Capacitance ( $V_{CB} = 10\text{ V}_{dc}$ , $I_E = 0$ , $f = 1\text{ MHz}$ )	$C_{ob}$	-	0.8	pF

\* $T_J = 25^\circ\text{C}$  (Unless Otherwise Specified)

**CASE OUTLINE: TO-72**

- PIN 1: EMITTER**
- PIN 2: BASE**
- PIN 3: COLLECTOR**
- PIN 4: CASE**

