



**SOLID STATE DEVICES, INC.**

14830 Valley View Blvd \* La Mirada, Ca 90638  
 Phone: (562) 404-7855 \* Fax: (562) 404-1773  
 ssdi@ssdi-power.com \* www.ssdi-power.com

**DESIGNER'S DATA SHEET**

**SFT2907A  
 SERIES**

**600 mA  
 60 VOLTS  
 PNP HIGH SPEED  
 LOW POWER TRANSISTOR**

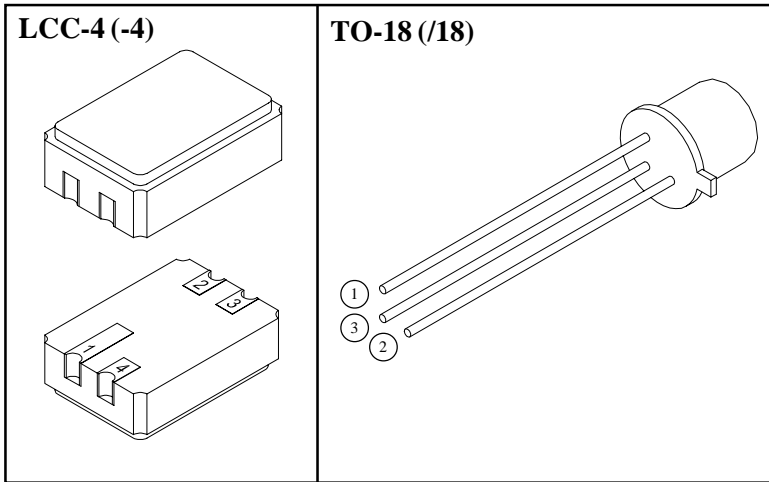
Part Number /Ordering Information <sup>1/</sup>  
**SFT2907A -4 TX**  
 Screening <sup>2/</sup>: \_ = Not Screened  
 TX = TX Level  
 TXV = TXV Level  
 S = Space Level  
 Package: <sup>3/</sup> -4 = LCC4  
 /18 = TO-18

- FEATURES**
- BV<sub>CEO</sub> 60V min.
  - Fast Switching
  - High Frequency
  - High Linear Gain, Low Saturation Voltage.
  - 200°C Operating, Gold Eutectic Die Attach.
  - Replaces 2N2907 types
  - Design for Complimentary Use with SFT2222A
  - TX, TXV, and S Level Available

MAXIMUM RATINGS	SYMBOL	VALUE	UNITS
Collector-Base Voltage	V <sub>CBO</sub>	60	Volts
Collector-Emitter Voltage	V <sub>CEO</sub>	60	Volts
Emitter-Base Voltage	V <sub>EBO</sub>	5.0	Volts
Continuous Collector Current	I <sub>C</sub>	600	mAmps
Base Current	I <sub>B</sub>	50	mAmps
Operating and Storage Temperature	T <sub>J</sub> , T <sub>STG</sub>	-65 to +175	°C
Total Device Dissipation @ T <sub>C</sub> ≤ 25°C Derate above 25°C	P <sub>D</sub>	1.8 10.3	W mW/°C

**Available Part Numbers:**  
 SFT2907A-4  
 SFT2907A/18

PIN ASSIGNMENT				
Code	Function	Collector	Emitter	Base
-4	Normal	Pin 1	Pin 2	Pin 3
/18	Normal	Pin 1	Pin 2	Pin 3



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

**DATA SHEET #: TR0022A**

# SFT2907A SERIES



**SOLID STATE DEVICES, INC.**

14830 Valley View Blvd \* La Mirada, Ca 90638  
Phone: (562) 404-7855 \* Fax: (562) 404-1773  
ssdi@ssdi-power.com \* www.ssdi-power.com

ELECTRICAL CHARACTERISTICS <sup>4/</sup>		SYMBOL	MIN	MAX	UNITS
Collector-Emitter Breakdown Voltage ( $I_C = 10\text{mA}$ )		$BV_{CEO}$	60	-	$V_{DC}$
Collector-Base Sustaining Voltage ( $I_C = 10\mu\text{A}$ )		$BV_{CBO}$	60	-	$V_{DC}$
Emitter-Base Sustaining Voltage ( $I_E = 10\mu\text{A}$ )		$BV_{EBO}$	5	-	$V_{DC}$
Collector Cutoff Current ( $V_{CE} = 30V_{DC}$ , $V_{BE} = 0.5V_{DC}$ )		$I_{CEX}$	-	50	$nA_{DC}$
Collector Cutoff Current ( $V_{CB} = 50V_{DC}$ )		$I_{CBO}$	-	10	$nA_{DC}$
DC Current Gain* ( $V_{CE} = 10V_{DC}$ )		$H_{FE}$	$I_C = 0.1mA_{DC}$ 75	-	
			$I_C = 1mA_{DC}$ 100	-	
			$I_C = 10mA_{DC}$ 100	-	
			$I_C = 150mA_{DC}$ 100	300	
			$I_C = 500mA_{DC}$ 50	-	
Collector-Emitter Saturation Voltage *	$I_C = 150mA_{DC}$ , $I_B = 15mA_{DC}$	$V_{CE(SAT)}$	-	0.4	$V_{DC}$
	$I_C = 500mA_{DC}$ , $I_B = 50mA_{DC}$		-	1.6	
Base-Emitter Saturation Voltage *	$I_C = 150mA_{DC}$ , $I_B = 15mA_{DC}$	$V_{BE(SAT)}$	-	1.3	$V_{DC}$
	$I_C = 500mA_{DC}$ , $I_B = 50mA_{DC}$		-	2.6	
AC Current Gain ( $I_C = 50mA_{DC}$ , $V_{CE} = 20V_{DC}$ , $f = 100\text{MHz}$ )		$h_{FE}$	2.0	-	
Input Capacitance ( $V_{BE} = 0.5V_{DC}$ , $I_E = 0$ , $f = 100\text{kHz}$ )		$C_{ib}$	-	30	$pF$
Output Capacitance ( $V_{CB} = 10V_{DC}$ , $I_E = 0$ , $f = 100\text{kHz}$ )		$C_{ob}$	-	8	$pF$
Delay Time	$V_{CC} = -30V_{DC}$ , $I_{CS} = 150mA_{DC}$ , $I_{B1} = 15mA_{DC}$ ,	$t_d$	-	10	$nsec$
Rise Time		$t_r$	-	40	$nsec$
Storage Time	$V_{CC} = -6V_{DC}$ , $I_{CS} = 150mA_{DC}$ , $I_{B1} = 15mA_{DC}$ , $I_{B2} = 15mA_{DC}$	$t_s$	-	80	$nsec$
Fall Time		$t_f$	-	30	$nsec$

**NOTES:**

- 1/ For Ordering Information, Price, and Availability Contact Factory.
  - 2/ Screening per MIL-PRF-19500.
  - 3/ For Package Outlines Contact Factory.
  - 4/  $T_C = 25^\circ\text{C}$ , Unless Otherwise Specified.
- \* Pulse Test: Pulse Width = 300us, Duty Cycle = 2%

**Package Outline**

Part Number	Document
SFT2907A-4	60-0149-323
SFT2907A/18	60-0149-018