



SOLID STATE DEVICES, INC.

14830 Valley View Blvd * La Mirada, Ca 90638
Phone: (562) 404-7855 * Fax: (562) 404-1773
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DESIGNER'S DATA SHEET

SFT3019 SERIES

1 A 80 VOLTS NPN HIGH SPEED TRANSISTOR

Part Number /Ordering Information ^{1/}

SFT3019 -4 TX

Screening ^{2/}: _ = Not Screened

TX = TX Level

TXV = TXV Level

S = Space Level

Package: ^{3/} -4 = LCC4

/18 = TO-18

FEATURES

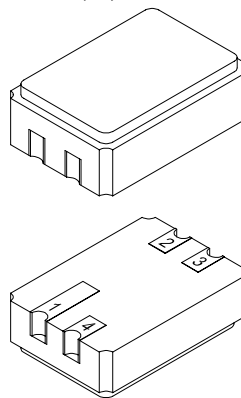
- V_{CE0} 80V min.
- Fast Switching
- High Frequency
- High Linear Gain, Low Saturation Voltage.
- Replaces 2N3019 type
- TX, TXV, and S Level Available

MAXIMUM RATINGS	SYMBOL	VALUE	UNITS
Collector-Base Voltage	V_{CB0}	140	Volts
Collector-Emitter Voltage	V_{CE0}	80	Volts
Emitter-Base Voltage	V_{EB0}	7.0	Volts
Continuous Collector Current	I_C	1	Amp
Operating and Storage Temperature	T_J, T_{STG}	-65 to +175	°C
Total Device Dissipation @ $T_C \leq 25^\circ C$ Derate above 25°C	P_D	5.0 28.6	W mW/°C

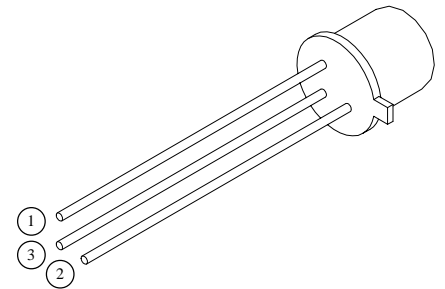
Available Part Numbers:

SFT3019-4
SFT3019/18

LCC-4 (-4)



TO-18 (/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 #: TR0024A

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ELECTRICAL CHARACTERISTICS ^{4/}	SYMBOL	MIN	MAX	UNITS
Collector-Emitter Breakdown Voltage * ($I_C = 30\text{mA}$)	BV_{CEO}	80	-	V_{DC}
Collector-Base Sustaining Voltage * ($I_C = 100\mu A_{DC}$)	BV_{CBO}	140	-	V_{DC}
Emitter-Base Sustaining Voltage * ($I_E = 100\mu A_{DC}$)	BV_{EBO}	7	-	V_{DC}
Emitter Current ($V_{BE} = 5V_{DC}$)	I_{EBO}	-	10	nA_{DC}
Collector Cutoff Current ($V_{CB} = 90V_{DC}$)	I_{CBO}	-	10	nA_{DC} μA_{DC}
DC Current Gain* ($V_{CE} = 10V_{DC}$)	H_{FE}	50 90 100 50 15 40	- - 300 - - -	
Collector-Emitter Saturation Voltage *	$V_{CE(SAT)}$	-	0.2 0.5	V_{DC}
Base-Emitter Saturation Voltage * ($I_C = 150\text{mA}_{DC}$, $I_B = 15\text{mA}_{DC}$)	$V_{BE(SAT)}$	-	1.1	V_{DC}
AC Current Gain	h_{fe}	5 80	- 400	
Input Capacitance ($V_{BE} = 0.5V$, $I_C = 0$, $f = 1\text{MHz}$)	C_{ib}	-	60	pF
Output Capacitance ($V_{CB} = 10V$, $I_E = 0$, $f = 1\text{MHz}$)	C_{ob}	-	8	pF
Collector-Base Time Constant ($V_{CB} = 10V$, $I_C = 10\text{mA}$, $f = 4\text{MHz}$)	$r_b * r_c$	-	400	$psec$
Noice Figure ($V_{CE} = 10V_{DC}$, $I_C = 100\mu A$, $R_g = 1k\Omega$, $f = 1\text{MHz}$)	NF	-	4	db

NOTES:

- 1/ For Ordering Information, Price, and Availability Contact Factory.
- 2/ Screening per MIL-PRF-19500.
- 3/ For Package Outlines Contact Factory.
- 4/ $T_C = 25^\circ C$, 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