



Solid State Devices, Inc.

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**SFT2369A2
 Series**

**Dual Microminiature Package
 100 mA 15 Volts
 Dual NPN Transistor**

DESIGNER'S DATA SHEET

Part Number / Ordering Information ^{1/}

SFT2369A2

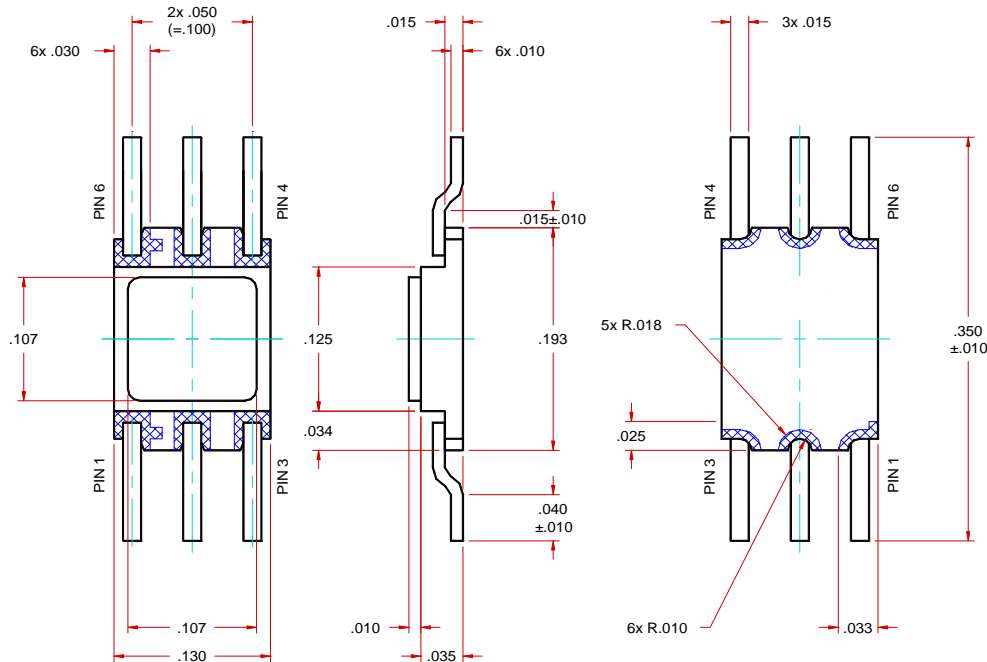
\square Screening ^{2/} = Commercial
 $\overline{\text{TX}}$ = TX Level
 $\overline{\text{TXV}}$ = TXV Level
 S = S Level
 Package GW = Gullwing

Features:

- High Speed Switching Transistor
- Suitable in chopper, UHF and RF application
- Multiple Devices Reduce Board Space
- Replacement for 2N2369AU
- TX, TXV, S-Level Screening Available ^{2/}

Maximum Ratings	Symbol	Value	Units
Collector – Emitter Voltage	V _{CEO}	15	Volts
Collector – Base Voltage	V _{CBO}	40	Volts
Emitter – Base Voltage	V _{EBO}	4.5	Volts
Continuous Collector Current	I _C	100	mA
Power Dissipation @ T _A = 25°C	P _D	360 500	mW
Operating & Storage Temperature	T _{OP} & T _{stg}	-65 to +200	°C
Maximum Thermal Resistance (Junction to PCB)	R _{θJ-PCB}	350	°C/W

Gullwing (GW)



Tolerances:
 .xx ±.01
 .xxx ±.005

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

DATA SHEET #: TR0045C

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Electrical Characteristic ^{4/}	Symbol	Min	Max	Units
Collector – Emitter Sustaining Voltage	$I_C = 10 \text{ mA}$ BV_{CEO}	15	—	Volts
Collector Cutoff Current	$V_{CE} = 20 \text{ V}$ I_{CES}	—	0.4	μA
Collector Cutoff Current	$V_{CE} = 10 \text{ V}, V_{BE} = 0.25 \text{ V}, T_A = 125^\circ\text{C}$ I_{CEX}	—	30	μA
Collector Cutoff Current	$V_{CB} = 32 \text{ V}$ $V_{CB} = 40 \text{ V}$ $V_{CB} = 20 \text{ V}, T_A = 150^\circ\text{C}$ I_{CBO}	—	0.2 10 30	μA
Emitter Cutoff Current	$V_{EB} = 4.0 \text{ V}$ $V_{EB} = 4.5 \text{ V}$ I_{EBO}	—	0.25 10	μA
DC Forward Current Transfer Ratio ^{5/}	$V_{CE} = 0.35 \text{ V}, I_C = 10 \text{ mA}$ $V_{CE} = 0.40 \text{ V}, I_C = 30 \text{ mA}$ $V_{CE} = 1.0 \text{ V}, I_C = 10 \text{ mA}$ $V_{CE} = 1.0 \text{ V}, I_C = 100 \text{ mA}$ $V_{CE} = 1.0 \text{ V}, I_C = 10 \text{ mA}, T_A = -55^\circ\text{C}$ H_{FE}	40 30 40 20 20	120 120 120 120 —	
Collector – Emitter Saturation Voltage ^{5/}	$I_C = 10 \text{ mA}, I_B = 1.0 \text{ mA}$ $I_C = 30 \text{ mA}, I_B = 3.0 \text{ mA}$ $I_C = 100 \text{ mA}, I_B = 10 \text{ mA}$ $I_C = 10 \text{ mA}, I_B = 1.0 \text{ mA}, T_A = 125^\circ\text{C}$ $V_{CE(Sat)}$	— — — —	0.20 0.25 0.45 0.30	Volts
Base – Emitter Saturation Voltage ^{5/}	$I_C = 10 \text{ mA}, I_B = 1.0 \text{ mA}$ $I_C = 30 \text{ mA}, I_B = 3.0 \text{ mA}$ $I_C = 100 \text{ mA}, I_B = 10 \text{ mA}$ $I_C = 10 \text{ mA}, I_B = 1.0 \text{ mA}, T_A = -55^\circ\text{C}$ $I_C = 10 \text{ mA}, I_B = 1.0 \text{ mA}, T_A = 125^\circ\text{C}$ $V_{BE(Sat)}$	0.7 — 0.8 — 0.59	0.85 0.9 1.2 1.02 —	Volts
Frequency Transition	$V_{CE} = 10 \text{ V}, I_C = 10 \text{ mA}, f = 100 \text{ MHz}$ f_T	500	1000	MHz
Output Capacitance	$V_{CB} = 5 \text{ V}, f = 1 \text{ MHz}$ c_{ob}	—	4.0	pF
Input Capacitance	$V_{EB} = 0.5 \text{ V}, f = 1 \text{ MHz}$ c_{ib}	—	5.0	pF
Switching Times	Test Circuit per MIL-PRF-19500/317 t_{on} t_{off} t_s	— — —	12 18 13	ns

NOTES:

- 1/ For Ordering Information, Price, and Availability Contact Factory.
- 2/ Screening based on MIL-PRF-19500. Screening flows available on request.
- 3/ For Package Outlines Contact Factory.
- 4/ Unless Otherwise Specified, All Electrical Characteristics @ 25°C.
- 5/ Pulse Test: Pulse Width= 300µsec, Duty Cycle= 2%

Available Part Numbers:

SFT2369A2GW

PIN ASSIGNMENT

Package	Pin 1	Pin 2	Pin 3	Pin 4	Pin 5	Pin 6
GW	Collector1	Base1	Emitter1	Collector2	Base2	Emitter2

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