



Solid State Devices, Inc.

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DESIGNER'S DATA SHEET

Part Number / Ordering Information ^{1/}

SFT2369A2

└ Screening ^{2/} = Commercial
TX = TX Level
TXV = TXV Level
S = S Level

└ Package GW = Gullwing

SFT2369A2 Series

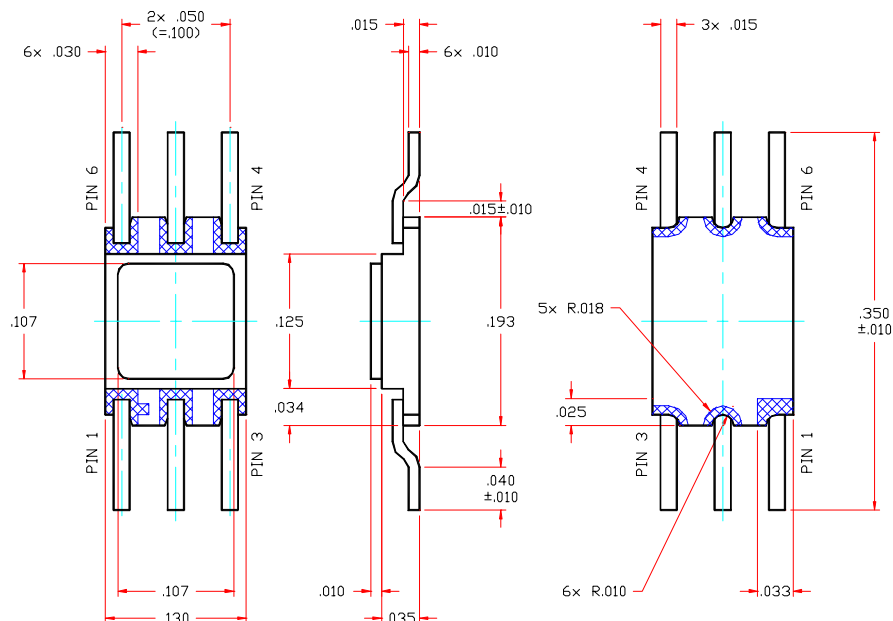
Dual Microminiature Package 100 mA 15 Volts Dual NPN Transistor

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

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
Continues Collector Current	I_C	100	mAmps
Power Dissipation @ $T_a = 25^{\circ}C$	P_D	360 500	mW
Operating & Storage Temperature	Top & Tstg	-65 to +200	$^{\circ}C$
Maximum Thermal Resistance (Junction to PCB)	$R_{\theta J-PCB}$	290	$^{\circ}C/W$

Gullwing (GW)



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

DATA SHEET #: TR0045A



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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}	—	400	nA
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}	—	200	nA
			10	μA
			30	μA
Emitter Cutoff Current $V_{eb} = 4.0 \text{ V}$ $V_{eb} = 4.5 \text{ V}$	I_{EBO}	—	250	nA
			10	μA
DC Forward Current Transfer Ratio * $V_{CE} = 0.35\text{V}, I_C = 10 \text{ mA}$ $V_{CE} = 0.40\text{V}, I_C = 30 \text{ mA}$ $V_{CE} = 1.0\text{V}, I_C = 10 \text{ mA}$ $V_{CE} = 1.0\text{V}, I_C = 100 \text{ mA}$ $V_{ce} = 1.0\text{V}, I_c = 10 \text{ mA}, T_a = -55^\circ\text{C}$	H_{FE}	40	120	
		30	120	
		40	120	
		20	120	
		20	—	
Collector – Emitter Saturation Voltage * $I_C = 10\text{mA}, I_B = 1.0\text{mA}$ $I_C = 30\text{mA}, I_B = 3.0\text{mA}$ $I_C = 100\text{mA}, I_B = 10\text{mA}$ $I_C = 10\text{mA}, I_B = 1.0\text{mA}, T_a = 125^\circ\text{C}$	$V_{CE(Sat)}$	—	0.20	Volts
		—	0.25	
		—	0.45	
		—	0.30	
Base – Emitter Saturation Voltage * $I_C = 10\text{mA}, I_B = 1.0\text{mA}$ $I_C = 30\text{mA}, I_B = 3.0\text{mA}$ $I_C = 100\text{mA}, I_B = 10\text{mA}$ $I_C = 10\text{mA}, I_B = 1.0\text{mA}, T_a = -55^\circ\text{C}$ $I_C = 10\text{mA}, I_B = 1.0\text{mA}, T_a = 125^\circ\text{C}$	$V_{BE(Sat)}$	0.7	0.85	Volts
		—	0.9	
		0.8	1.2	
		—	1.02	
		0.59	—	
Frequency Transition $V_{CE} = 10\text{V}, I_C = 10\text{mA}$	f_T	500	1000	MHz
Output Capacitance $V_{CE} = 5\text{V}, f = 1\text{MHz}$	c_{ob}	—	4.0	pF
Input Capacitance $V_{CE} = 0.5\text{V}, f = 1\text{MHz}$	c_{ib}	—	5.0	pF
Switch Times Test Circuit per MIL-PRF-19500/317	t_{on}	—	12	nsec
	t_{off}	—	18	
	t_s	—	13	

NOTES:

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

1/ For Ordering Information, Price, and Availability Contact Factory.

2/ Screening per MIL-PRF-19500

3/ For Package Outlines Contact Factory.

4/ Unless Otherwise Specified, All Electrical Characteristics @25°C.

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