



**Solid State Devices, Inc.**

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**DESIGNER'S DATA SHEET**

**Part Number / Ordering Information <sup>1/</sup>**

SFT4957A2

$\square$  Screening <sup>2/</sup>  $\underline{\quad}$  = Commercial  
 TX = TX Level  
 TXV = TXV Level  
 S = S Level

Package: GW = Gullwing

**SFT4957A2  
Series**

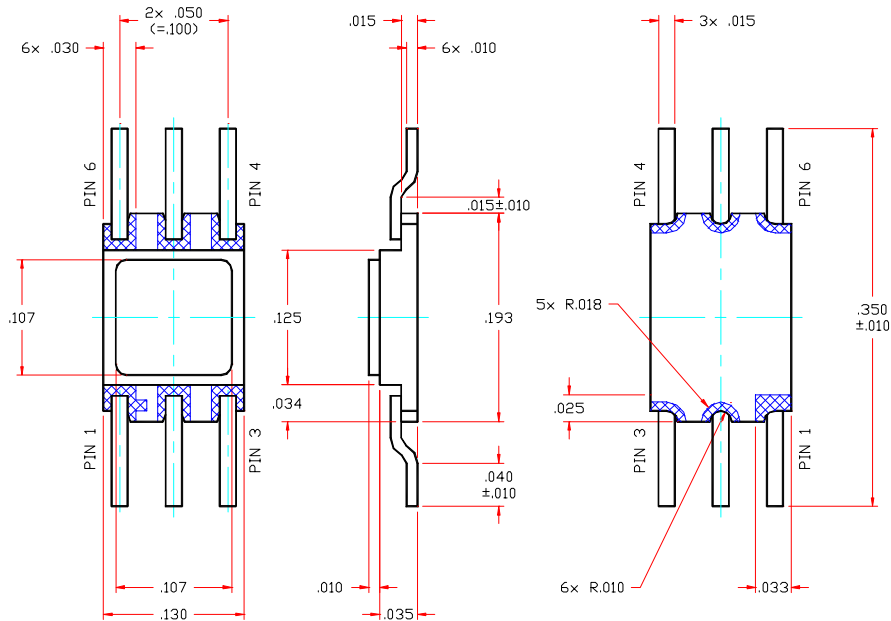
**Dual Microminiature Package  
30 mA 30 Volts  
Dual PNP RF Transistor**

**Features:**

- RF Switching Transistor
- Multiple Devices Reduce Board Space
- Replacement/Enhancement for 2N4957UB
- TX, TXV, S-Level screening available
- NPN complimentary parts available (SFT2857A2)

Maximum Ratings	Symbol	Value	Units
Collector – Emitter Voltage	$V_{CEO}$	30	Volts
Collector – Base Voltage	$V_{CBO}$	30	Volts
Emitter – Base Voltage	$V_{EBO}$	3	Volts
Continues Collector Current	$I_C$	30	mAmps
Power Dissipation @ TC = 25°C (each device)	$P_D$	200	mW
Operating & Storage Temperature	Top & Tstg	-65 to +200	°C
Maximum Thermal Resistance (Junction to PCB)	$R_{\theta JC}$	290	°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 #: TR0077 A**

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# SFT4957A2 Series

Electrical Characteristic <sup>4/</sup>	Symbol	Min	Max	Units
<b>Collector – Emitter Sustaining Voltage</b> $I_C = 1 \text{ mA}$	$BV_{CEO}$	-30	—	Volts
<b>Collector Cutoff Current</b> $V_{cb} = -20 \text{ V}$	$I_{CBO1}$	—	100	nA
<b>Collector Cutoff Current</b> $V_{cb} = -30 \text{ V}$	$I_{CBO2}$	—	100	uA
<b>Collector Cutoff Current</b> $V_{cb} = -20 \text{ V}, T_a = 150^\circ\text{C}$	$I_{CBO3}$	—	100	uA
<b>Emitter Cutoff Current</b> $V_{eb} = -3.0 \text{ V}$	$I_{EBO}$	—	100	uA
<b>DC Forward Current Transfer Ratio *</b> $V_{CE} = -10\text{V}, I_C = 0.5 \text{ mA}$ $V_{CE} = -10\text{V}, I_C = 2.0 \text{ mA}$ $V_{CE} = -10\text{V}, I_C = 5 \text{ mA}$ $V_{CE} = -10\text{V}, I_C = 5 \text{ mA}, T_a = -55^\circ\text{C}$	$H_{FE1}$ $H_{FE2}$ $H_{FE3}$ $H_{FE4}$	15 20 30 10	— — 165 —	
<b>Frequency Transition (Small Signal Current Gain) @ <math>f = 100 \text{ MHz}</math></b> $V_{CE} = -10\text{V}, I_C = 2.0 \text{ mA}$	$h_{fe}$	12	36	
<b>CB feedback (output) Capacitance</b> $V_{CE} = -10\text{V}, f = 1\text{MHz}$	$c_{cb}$	—	0.8	pF
<b>CB time constant</b> $V_{CE} = -10\text{V}, I_C = 2\text{mA}, f = 63.6 \text{ MHz}$	$rbCc$	1.0	16	psec
<b>Common emitter small signal power gain</b> $V_{CE} = -10\text{V}, I_C = 2\text{mA}, f = 450 \text{ MHz}$	$G_{pe}$	17	25	dB
<b>Noise Figure</b> $I_C = 2 \text{ mA}, V_{ce} = -10 \text{ V}, R_L = 50\Omega, f = 450 \text{ MHz}$	<b>NF</b>	—	3.5	dB

**NOTES:**

\* Pulse Test: Pulse Width = 300µsec, 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:**  
SFT4957A2GW

PIN ASSIGNMENT						
Package	Pin 1	Pin 2	Pin 3	Pin 4	Pin 5	Pin 6
<b>GW</b>	Collector1	Base1	Emitter1	Collector2	Base2	Emitter2

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