



Solid State Devices, Inc.

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DESIGNER'S DATA SHEET

Part Number / Ordering Information ^{1/}

SFT4957A2

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

Package: GW = Gullwing

**SFT4957A2
Series**

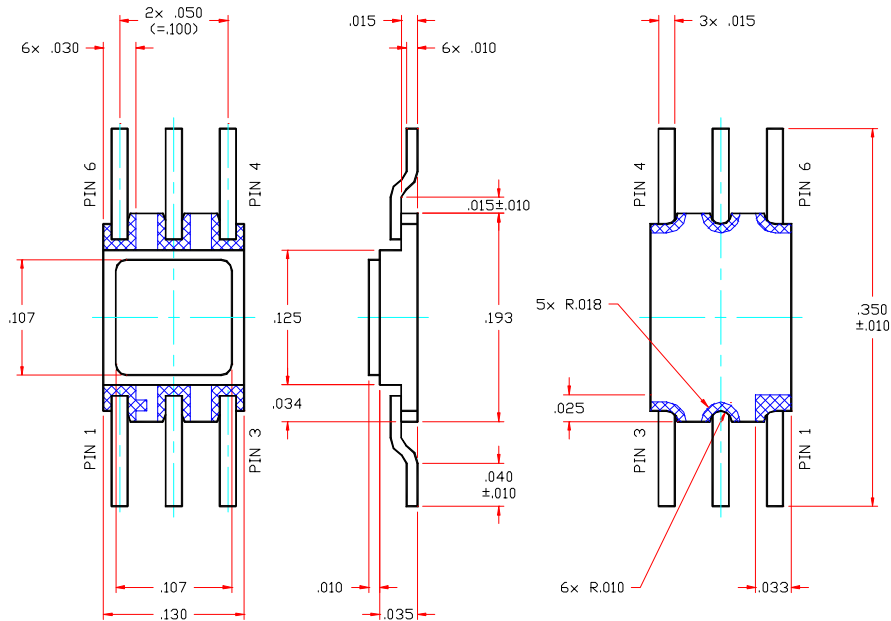
**Dual Microminiature Package
30 mA 30 Volts
Dual PNP RF Transistor**

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 @ $T_C = 25^\circ C$ (each device) | P_D | 200 | mW |
| Operating & Storage Temperature | Top & Tstg | -65 to +200 | $^\circ C$ |
| Maximum Thermal Resistance (Junction to PCB) | $R_{\theta JC}$ | 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 #: TR0077 A

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**SFT4957A2
Series**

| Electrical Characteristic ^{4/} | Symbol | Min | Max | Units |
|---|--|----------------------|--------------------|-------|
| Collector – Emitter Sustaining Voltage $I_C = 1 \text{ mA}$ | BV_{CEO} | -30 | — | Volts |
| Collector Cutoff Current $V_{cb} = -20 \text{ V}$ | I_{CBO1} | — | 100 | nA |
| Collector Cutoff Current $V_{cb} = -30 \text{ V}$ | I_{CBO2} | — | 100 | uA |
| Collector Cutoff Current $V_{cb} = -20 \text{ V}, T_a = 150^\circ\text{C}$ | I_{CBO3} | — | 100 | uA |
| Emitter Cutoff Current $V_{eb} = -3.0 \text{ V}$ | I_{EBO} | — | 100 | uA |
| DC Forward Current Transfer Ratio * $V_{CE} = -10\text{V}, I_C = 0.5 \text{ mA}$ $V_{CE} = -10\text{V}, I_C = 2.0 \text{ mA}$ $V_{CE} = -10\text{V}, I_C = 5 \text{ mA}$ $V_{CE} = -10\text{V}, I_C = 5 \text{ mA}, T_a = -55^\circ\text{C}$ | H_{FE1} H_{FE2} H_{FE3} H_{FE4} | 15 20 30 10 | — — 165 — | |
| Frequency Transition (Small Signal Current Gain) @ $f = 100 \text{ MHz}$ $V_{CE} = -10\text{V}, I_C = 2.0 \text{ mA}$ | h_{fe} | 12 | 36 | |
| CB feedback (output) Capacitance $V_{CE} = -10\text{V}, f = 1\text{MHz}$ | c_{cb} | — | 0.8 | pF |
| CB time constant $V_{CE} = -10\text{V}, I_C = 2\text{mA}, f = 63.6 \text{ MHz}$ | $rbCc$ | 1.0 | 16 | psec |
| Common emitter small signal power gain $V_{CE} = -10\text{V}, I_C = 2\text{mA}, f = 450 \text{ MHz}$ | G_{pe} | 17 | 25 | dB |
| Noise Figure $I_C = 2 \text{ mA}, V_{ce} = -10 \text{ V}, R_L = 50\Omega, f = 450 \text{ MHz}$ | NF | — | 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 |
| GW | Collector1 | Base1 | Emitter1 | Collector2 | Base2 | Emitter2 |
| | | | | | | |
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