Solid State Devices, Inc.
14701 Firestone Blvd * La Mirada, CA 90638
Phone: (562) 404-4474 * Fax: (562) 404-1773
ssdi@ssdi-power.com * www.ssdi-power.com

SFT2222A2 Series

Dual Microminiature Package
800 mA 75 Volts
Dual NPN Transistor

DESIGNER'S DATA SHEET

Part Number / Ordering Information [1/]

SFT2222A2

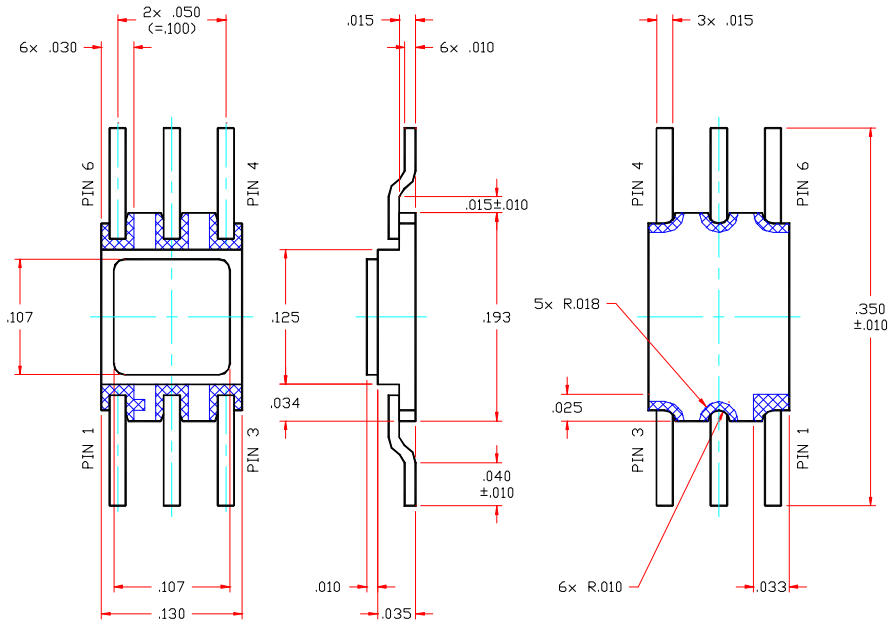
__ __
* **Screening** [2/] __ = Commercial
TX = TX Level
XV = TXV Level
S = S Level

* **Package** GW = Gullwing

Features:
- High Speed Switching Transistor
- Multiple Devices Reduce Board Space
- High Power Dissipation: Up to 660 mW
- Replacement for 2N2222AU
- TX, TXV, S-Level Screening Available
- PNP Complimentary Parts Available (SFT2907A2)

Maximum Ratings		Symbol	Value	Units
Collector – Emitter Voltage		V_{CEO}	50	**Volts**
Collector – Base Voltage		V_{CBO}	75	**Volts**
Emitter – Base Voltage		V_{EBO}	6	**Volts**
Continuous Collector Current		I_C	800	**mA**
Power Dissipation @ T_A= 25ºC	Per Device Total	P_D	500 660	**mW**
Operating & Storage Temperature		T_{op} & T_{stg}	-65 to +200	**ºC**
Maximum Thermal Resistance (Junction to PCB)		$R_{qJ\text{-}PCB}$	245	**ºC/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 #: TR0030D**	**DOC**

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Electrical Characteristics 4/		Symbol	Min	Max	Units
Collector – Emitter Sustaining Voltage	I_C = 10 mA	**BV_{CEO}**	50	—	**Volts**
Collector Cutoff Current	V_{CE} = 50 V	**I_{CES}**	—	50	**nA**
Collector Cutoff Current	V_{CB} = 60 V V_{CB} = 75 V V_{CB} = 60 V, T_A = 150 ºC	**I_{CBO}**	— — —	10 10 10	**nA** **mA** **mA**
Emitter Cutoff Current	V_{EB} = 4.0 V V_{EB} = 6.0 V	**I_{EBO}**	— —	10 10	**nA** **mA**
DC Forward Current Transfer Ratio *	V_{CE} = 10V, I_C = 0.1 mA V_{CE} = 10V, I_C = 1.0 mA V_{CE} = 10V, I_C = 10 mA V_{CE} = 10V, I_C = 150 mA V_{CE} = 10V, I_C = 500 mA V_{CE} = 10V, Ic = 10 mA, T_A= -55 ºC	**H_{FE}**	50 75 100 100 30 35	— 325 — 300 — —	
Collector – Emitter Saturation Voltage *	I_C = 150mA, I_B = 15mA I_C = 500mA, I_B = 50mA	**$V_{CE(Sat)}$**	— —	0.3 1.0	**Volts**
Base – Emitter Saturation Voltage *	I_C = 150mA, I_B = 15mA I_C = 500mA, I_B = 50mA	**$V_{BE(Sat)}$**	0.6 —	1.2 2.0	**Volts**
Frequency Transition (Small Signal Current Gain) @ f = 100 MHz	V_{CE} = 20V, I_C = 20mA	**f_T**	250	—	**MHz**
Output Capacitance	V_{CE} = 10V, f = 1MHz	**c_{ob}**	—	8.0	**pF**
Input Capacitance	V_{CE} = 0.5V, f = 1MHz	**c_{ib}**	—	25	**pF**
Small Signal Current Gain	V_{CE} = 10V, I_C = 1.0 mA, f = 1 kHz	**h_{fe}**	50	300	
Switching Times	Vcc = 30V, Ic = 150 mA I_{B1}= I_{B2} = 15 mA, $V_{BE(off)}$ = 3V	**t_{on}** **t_{off}**	— —	35 300	**ns** **ns**

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 @25ºC.

Available Part Numbers:

SFT2222A2GW

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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DOC