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

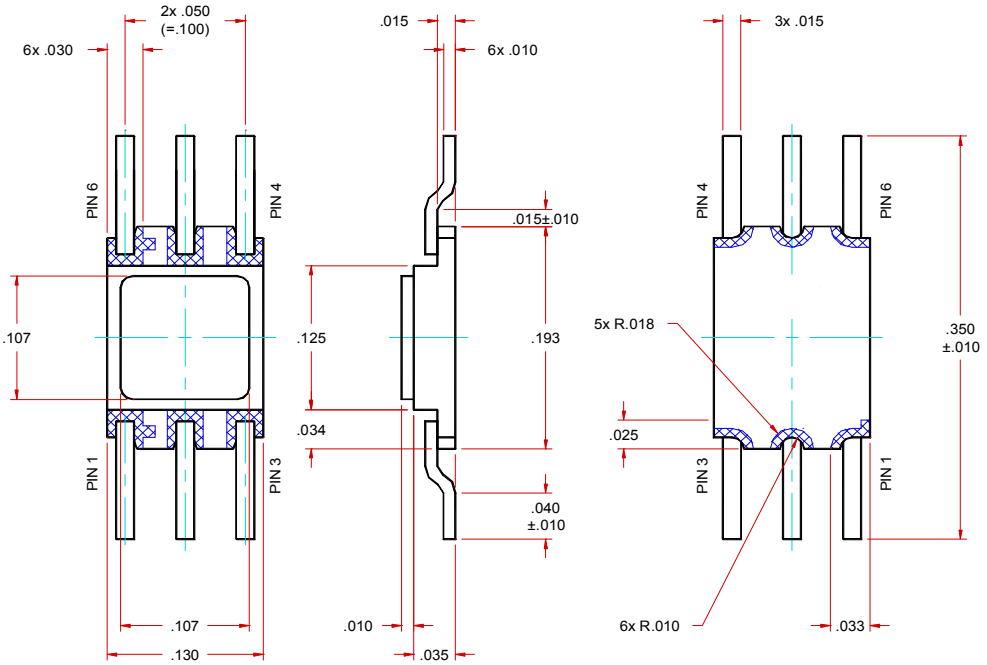
Screening [2/] __ = Commercial
TX= TX Level
TXV= TXV Level
S= S Level

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 [2/]
- NPN 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)		$R_{\theta J\text{-}PCB}$	265	ºC/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 #: TR0030E	DOC

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Electrical Characteristic [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= 150ºC	I_{CBO}	—	0.01 10 10	µA
Emitter Cutoff Current	V_{EB}= 4.0 V V_{EB}= 6.0 V	I_{EBO}	—	0.01 10	µA
DC Forward Current Transfer Ratio [5/]	V_{CE}= 10 V, I_C= 0.1 mA V_{CE}= 10 V, I_C= 1.0 mA V_{CE}= 10 V, I_C= 10 mA V_{CE}= 10 V, I_C= 150 mA V_{CE}= 10 V, I_C= 500 mA V_{CE}= 10 V, I_C= 10 mA, T_A= -55ºC	H_{FE}	50 75 100 100 30 35	— 325 — 300 — —	
Small-signal Forward Current Transfer Ratio	V_{CE}= 10 V, I_C= 1.0 mA, f= 1 kHz	h_{fe}	50	—	
Collector – Emitter Saturation Voltage [5/]	I_C= 150 mA, I_B= 15 mA I_C= 500 mA, I_B= 50 mA	$V_{CE(Sat)}$	— —	0.3 1.0	Volts
Base – Emitter Saturation Voltage [5/]	I_C= 150 mA, I_B= 15 mA I_C= 500 mA, I_B= 50 mA	$V_{BE(Sat)}$	0.6 —	1.2 2.0	Volts
Frequency Transition	V_{CE}= 20 V, I_C= 20 mA, f= 100 MHz	f_T	250	—	MHz
Switching Times	V_{CC}= 30 V, I_C= 150 mA I_{B1}= I_{B2}= 15 mA, $V_{BE(off)}$= 3 V	t_{on} t_{off}	— —	35 300	ns
Output Capacitance	V_{CE}= 10 V, f= 1MHz	c_{ob}	—	8.0	pF
Input Capacitance	V_{CE}= 0.5 V, f= 1MHz	c_{ib}	—	25	pF

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 @ 25ºC.

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

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