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

SFT5926/63

DESIGNER'S DATA SHEET

Part Number / Ordering Information [1/]

SFT5926

Screening [2/]
__ = Not Screened
TX = TX Level
TXV = TXV Level
S = S Level

Package
/63 = TO-63

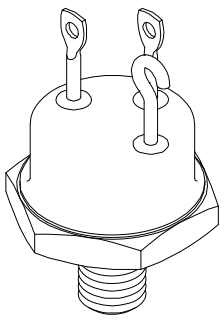
150V, 100 AMP POWER TRANSISTOR SILICON NPN
350 WATTS

Features:
- High Frequency transistor with BVCEO to 120 Volts
- Enhanced SOA capability and Fast Switching
- High Power Dissipation: 350 Watts
- 200°C Operating Temperature
- Replacement for 2N5926
- TX, TXV, S-Level Screening Available[2/] - Consult Factory

Maximum Ratings	Symbol	Value	Units
Collector – Emitter Voltage	V_{CEO}	120	Volts
Collector – Base Voltage	V_{CBO}	150	Volts
Emitter – Base Voltage	V_{EBO}	10	Volts
Collector Current	I_C	100	Amps
Base Current	I_B	20	Amps
Total Device Dissipation @ TC = 25ºC Derate above 25ºC	P_D	350 2	W W/ºC
Operating & Storage Temperature	Top & Tstg	-65 to +200	ºC
Maximum Thermal Resistance Junction to Case	$R_{\theta JC}$	0.5	ºC/W

NOTES:
* Pulse Test: Pulse Width = 300µsec, Duty Cycle = 2%
1/ For ordering information, price, operating curves, and availability contact factory.
2/ Screening based on MIL-PRF-19500. Screening flows available on request.
3/ Unless otherwise specified, all electrical characteristics @25ºC.

TO-63



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Electrical Characteristic [3/]		Symbol	Min	Max	Units
Collector – Emitter Breakdown Voltage*	I_C = 200mA	**BV_{CEO}**	120	-	Volts
Collector – Cutoff Current	V_{CE} = 150V V_{CE} = 100V, T_C = 150°C	**I_{CES}**	- -	2 10	mA
Emitter – Cutoff Current	V_{EB} = 10V	**I_{EBO}**	-	1	mA
DC Current Gain *	V_{CE} = 2V, I_C = 20A V_{CE} = 2V, I_C = 50A V_{CE} = 4V, I_C = 90A V_{CE} = 2V, I_C = 50A, T_A = -65°C	**h_{FE}**	20 10 5 10	120 100 - -	—
Collector – Emitter Saturation Voltage *	I_C = 50A, I_B = 5A I_C = 90A, I_B = 18A	**$V_{CE(Sat)}$**	- -	0.6 1.5	Volts
Base – Emitter Voltage *	I_C = 50A, V_{CE} = 2V I_C = 90A, V_{CE} = 4V	**$V_{BE(on)}$**	- -	1.5 2.5	Volts
Common Emitter Small Signal Gain	V_{CE} = 10V, I_C = 5A, f= 100kHz	**h_{fe}**	5	20	—
Safe Operating Area	V_{CE} = 4V, I_C = 50A,1s, T_C = 25°C V_{CE} = 50V, I_C = 1A,1s, T_C = 25°C V_{CE} = 100V, I_C = 0.5A,1s, T_C= 25°C	**SOA_1** **SOA_2** **SOA_3**	- - -	- - -	—
ON Time	V_{CC} = 50V, V_{BE1} = 11.2V R_C = 1Ω, V_{BE2} = 10V R_B = 2Ω	**t_{ON}**	- -	7	µsec
Storage Time		**t_S**	-	4	µsec
Fall Time		**t_f**	-	6	

NOTES:

1. DIMENSION DOES NOT INCLUDE SEALING FLANGES.
2. PACKAGE CONTOUR OPTIONAL WITHIN DIMENSIONS SPECIFIED.
3. POSITION OF LEADS IN RELATION TO HEXAGON IS NOT DEFINED.

PIN ASSIGNMENT

PIN 1: EMITTER
PIN 2: BASE
PIN 3: COLLECTOR

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