



Solid State Devices, Inc.

14830 Valley View Blvd * La Mirada, Ca 90638

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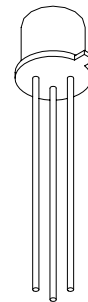
Designer's Data Sheet

FEATURES:

- High Surge Current
- High On State Current
- High Frequency up to 400 Hz operation
- Anode Common to Case
- Hermetically Sealed
- Replacement for part number 2N884 thru 2N889 and 2N876 thru 2N881 devices.
- TX, TXV, S-Level Screening Available. Consult Factory

SFS884 thru SFS889

20 AMPS
15 – 200 VOLTS
SILICON CONTROLLED
RECTIFIER



TO-18

MAXIMUM RATINGS (T_J = 25°C UNLESS OTHERWISE NOTED, R_{GK} = 1K Ω)		Symbol	Value	Units
Peak Repetitive Reverse Voltage and DC Blocking Voltage	SFS884	V _{DRM}	15	Volts
	SFS885		30	
	SFS886		60	
	SFS887	V _{RRM}	100	
	SFS888		150	
	SFS889		200	
Average On-State Current	T _a = 30°C T _a = 100°C	I _F (AV)	0.5 0.35	Amps
Peak Recurrent Surge Current (T _a ≤ 100°C, t _p = 0.2 ms, duty cycle = 0.1 %)		I _{FSR}	20	Amps
Peak Gate Current		I _{GM}	250	mA
Peak Gate Voltage		V _{GM}	5	Volts
Operating Junction Temperature Range		T _J	-65 to +150	°C
Storage Temperature Range		T _{stg}	-65 to +150	°C
PACKAGE OUTLINE: TO-18				



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SFS884 thru SFS889

ELECTRICAL CHARACTERISTICS ($T_a = 25^{\circ}\text{C}$ unless otherwise indicated)		Symbol	Min	Typical	Max	Unit
Peak Reverse Blocking Current (Rated V_{RRM})	$T_j = 25^{\circ}\text{C}$ $T_j = 125^{\circ}\text{C}$	I_{RRM}	—	—	10 100	μA
Peak Forward Blocking Current (Rated V_{DRM})	$T_j = 25^{\circ}\text{C}$ $T_j = 125^{\circ}\text{C}$	I_{DRM}	—	—	10 100	μA
Peak On-State Voltage ($I_F = 0.2\text{ A Peak}$)		V_{TM}	—	1.0	1.50	Volts
Reverse Gate Current ($V_G = -2\text{ V}_{DC}$, Anode = open)		I_{GR}	—	—	10	μA
Gate Trigger Current ($V_D = 12\text{ V}_{DC}$, $R_L = 33\ \Omega$)		I_{GT}	—	50	80	μA
Gate Trigger Voltage ($V_D = 12\text{ V}_{DC}$, $R_L = 33\ \Omega$)		V_{GT}	0.4	0.65	0.72	Volts
Holding Current ($I_T = 500\text{ mA}$, Gate Open)		I_H	—	1.0	2.2	mA
Critical Rate of Voltage Rise (Linear slope up to $V_D = 67\%$ of V_{DRM} , $R_{gk} = 1\text{ K}\Omega$)		dV/dt	—	750	—	$\text{V}/\mu\text{s}$
Commutated Turn-off Time ($I_F = 2\text{ A}$, $I_g = 200\text{ mA}$, $dI_g/dt = 0.1\text{ A}/\mu\text{s}$)		t_{qt}	—	2	—	μs

NOTES:

1/ Unless Otherwise Specified, All Electrical Characteristics @ $T_C = 25^{\circ}\text{C}$, $R_{GK} = 1\text{ K}\Omega$.

Available Part Numbers:

SFS884, SFS885, SFS886, SFS887, SFS888, SFS889

PIN ASSIGNMENT (Standard)

Package	Cathode	Gate	Anode
TO-18	Pin 1	Pin 2	Pin 3 (case)

NOTE: All specifications are subject to change without notification.
SCD's for these devices should be reviewed by SSDI prior to release.

DATA SHEET #: SCR008A

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