

# SF5400 THRU SF5408

**SINTERED GLASS JUNCTION  
ULTRAFAST AVALANCHE RECTIFIER**  
VOLTAGE: 50 to 1000V      CURRENT: 3.0A



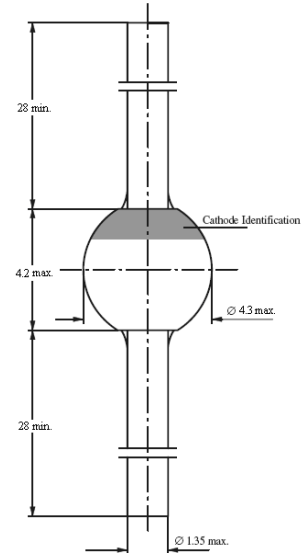
## FEATURE

Glass passivated  
Hermetically sealed package  
Low reverse current  
High reverse voltage

## MECHANICAL DATA

Case: SOD-64 sintered glass case  
Terminal: Plated axial leads solderable per MIL-STD 202E, method 208C  
Polarity: color band denotes cathode end  
Mounting position: any

## SOD-64



Dimensions in inches and (millimeters)

## MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

(single-phase, half-wave, 60HZ, resistive or inductive load rating at 25°C, unless otherwise stated)

	SYMBOL	SF5 400	SF5 401	SF5 402	SF5 403	SF5 404	SF5 405	SF5 406	SF5 407	SF5 408	units
Maximum Recurrent Peak Reverse Voltage	$V_{RRM}$	50	100	200	300	400	500	600	800	1000	V
Maximum RMS Voltage	$V_{RMS}$	35	70	140	210	280	350	420	560	700	V
Maximum DC blocking Voltage	$V_{DC}$	50	100	200	300	400	500	600	800	1000	V
Minimum Reverse Breakdown Voltage IR = 100µA	$V_{(BR)R}$	60	110	220	330	440	550	660	880	1100	V
Maximum Average Forward Rectified Current 3/8" lead length	$I_{FAV}$	3.0									A
Peak Forward Surge Current at tp=10ms, half sinewave	$I_{FSM}$	150									A
Maximum Forward Voltage at rated Forward Current	$V_F$	1.1					1.7				V
Non-repetitive peak reverse avalanche energy at $I_{BR(R)}=0.4A$	$E_{RSM}$	10									mJ
Maximum DC Reverse Current      Ta =25°C at rated DC blocking voltage      Ta =125°C	$I_R$	5.0 50.0									µA
Maximum Reverse Recovery Time (Note 1)	$T_{rr}$	50					75				nS
Typical Thermal Resistance (Note 2)	$R_{th}(ja)$	70									K/W
Storage and Operating Junction Temperature	$T_{stg}, T_j$	-55 to +175									°C

Note:

- Reverse Recovery Condition  $I_f = 0.5A, I_r = 1.0A, I_{rr} = 0.25A$
- on PC board with spacing 25 mm

Rev.A1

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## RATINGS AND CHARACTERISTIC CURVES SF5400 THRU SF5408

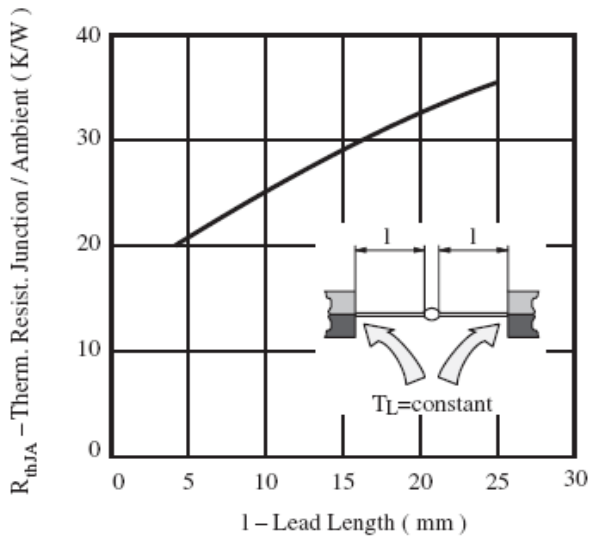


Figure 1. Max. Thermal Resistance vs. Lead Length

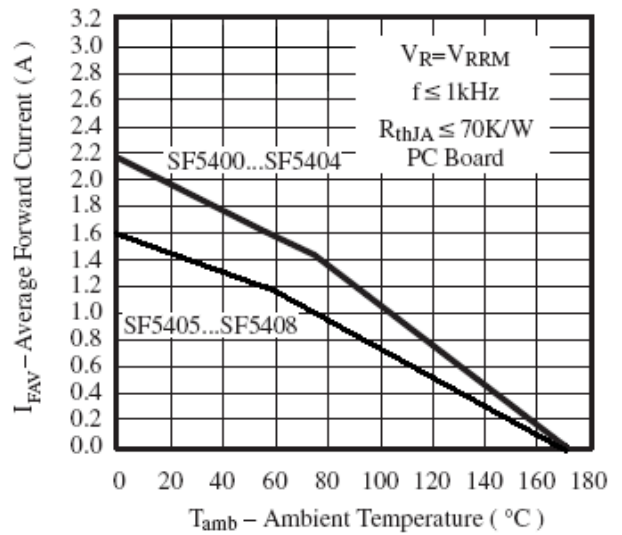


Figure 2. Max. Average Forward Current vs. Ambient Temperature

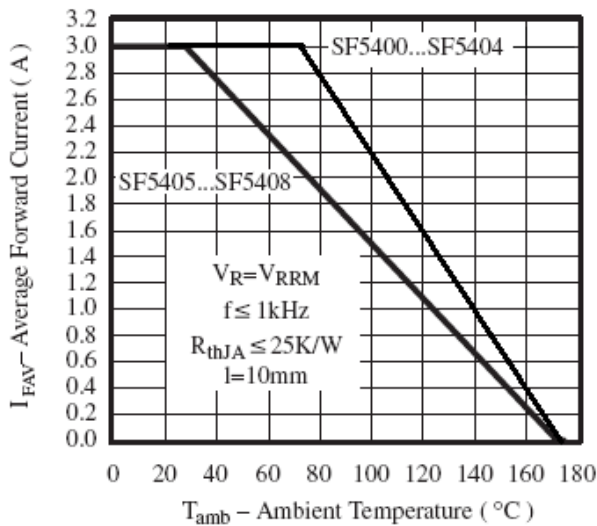


Figure 3. Max. Average Forward Current vs. Ambient Temperature

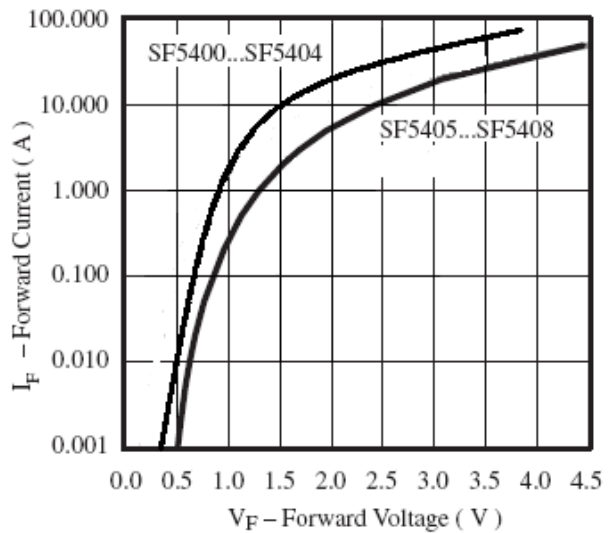


Figure 4. Max. Forward Current vs. Forward Voltage

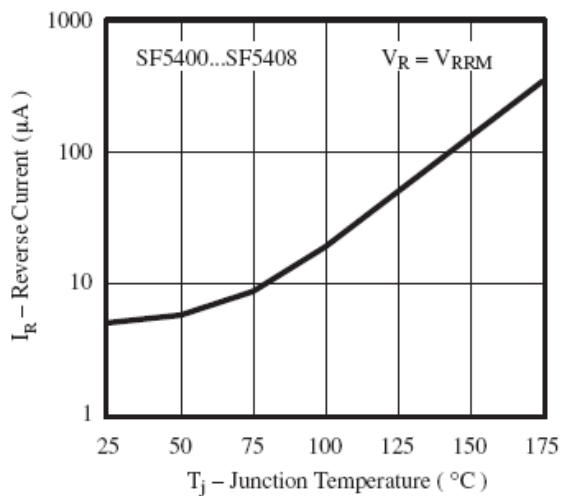


Figure 5. Max. Reverse Current vs. Junction Temperature

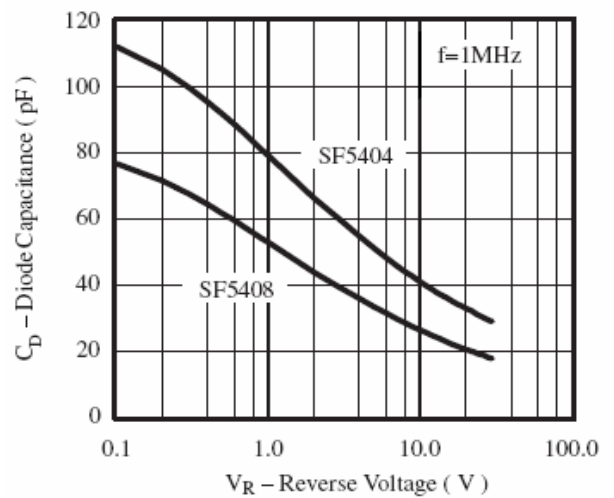


Figure 6. Diode Capacitance vs. Reverse Voltage