

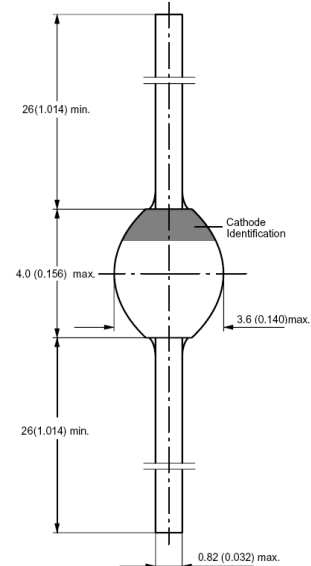
### FEATURE

Very low switching losses  
Glass passivated  
Low reverse current  
High reverse voltage  
Hermetically sealed package

### MECHANICAL DATA

Case: SOD-57 sintered glass case  
Terminal: Plated axial leads solderable per MIL-STD 202E, method 208C  
Polarity: color band denotes cathode end  
Mounting position: any

### SOD-57



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	SF1600	units
Maximum Recurrent Peak Reverse Voltage	$V_{RRM}$	1600	V
Maximum RMS Voltage	$V_{RMS}$	1120	V
Maximum DC blocking Voltage	$V_{DC}$	1600	V
Minimum Reverse Breakdown Voltage IR = 100μA	$V_{(BR)R}$	1650	V
Average Forward Rectified Current half-sinewave, Rth(ja)=45K/W, Ta=25°C	$I_{FAV}$	1.0	A
Peak Forward Surge Current at tp=10ms, half sinewave	$I_{FSM}$	30	A
Maximum Forward Voltage at 1.0A	$V_F$	3.4	V
Non-repetitive peak reverse avalanche energy at $I_{BR(R)}=0.4A$	$E_R$	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)	$T_{rr}$	75	nS
Typical Thermal Resistance (Note 2)	$R_{th(ja)}$	45	K/W
Storage and Operating Junction Temperature	$T_{stg}, T_j$	-55 to +175	°C

Note:

- Reverse Recovery Condition  $I_f=0.5A, I_r=1.0A, I_{rr}=0.25A$
- Lead length  $l=10mm, T_L=constant$

**SINTERED GLASS JUNCTION  
ULTRAFAST AVALANCHE RECTIFIER**  
VOLTAGE: 1600 CURRENT: 1.0A

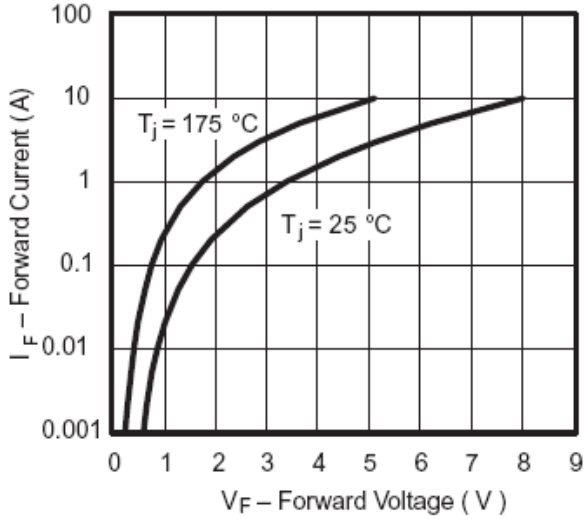


Figure 1. Max. Forward Current vs. Forward Voltage

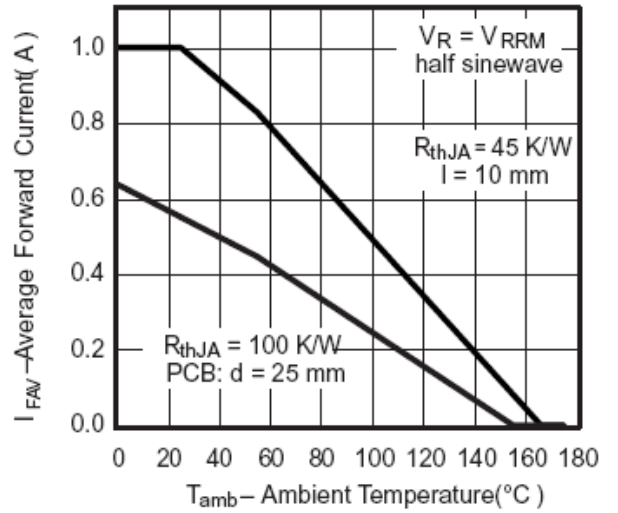


Figure 2. Max. Average Forward Current vs. Ambient Temperature

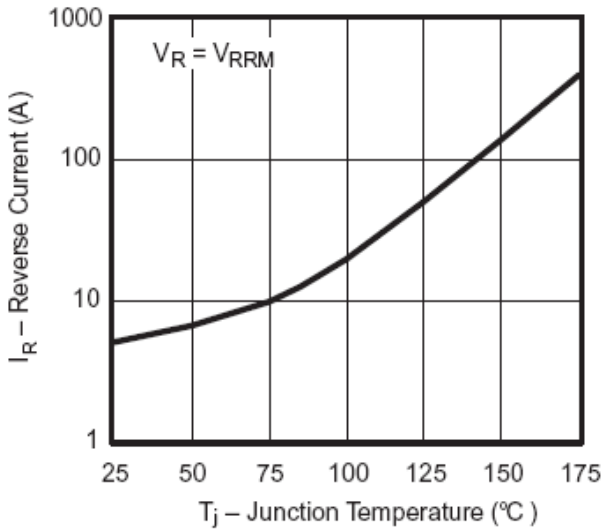


Figure 3. Reverse Current vs. Junction Temperature

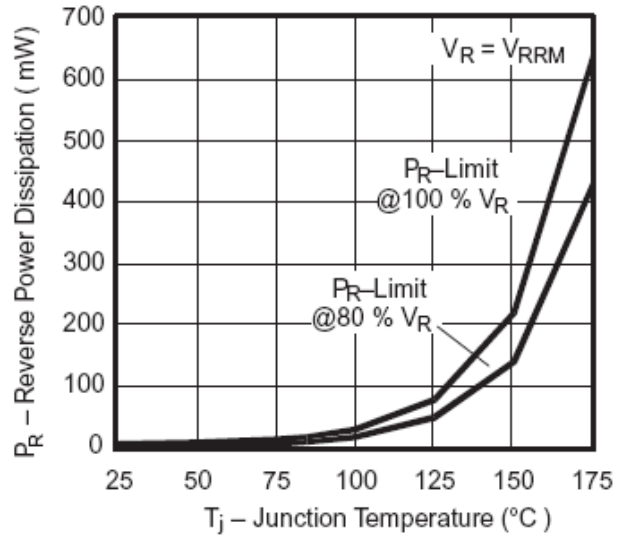


Figure 4. Max. Reverse Power Dissipation vs. Junction Temperature

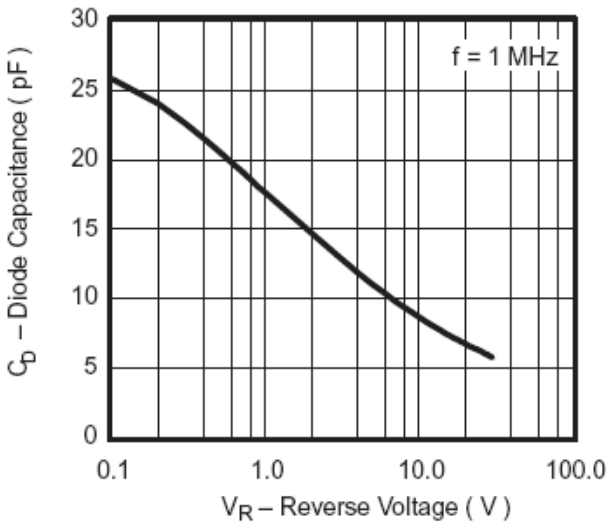


Figure 5. Diode Capacitance vs. Reverse Voltage