



**SFA08G**

**Superfast Recovery Rectifiers**

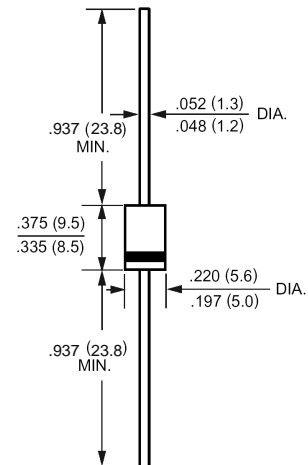
**FEATURES**

- Glass Passivated chip junction
- High surge capability
- Low forward voltage, high current capability
- Hermetically sealed
- Superfast recovery times
- Exceeds environmental standards of MIL-S-19500/228
- Low leakage.

**MECHANICAL DATA**

Case: Molded plastic, DO-201AD  
 Epoxy: UL 94V-O rate flame retardant  
 Lead: Axial leads, solderable per MIL-STD-750, method 2026  
 Polarity: Color band denotes cathode end  
 Mounting position: Any  
 Weight: 0.04ounce, 1.1gram

DO-201AD(DO-27)



Dimensions in inches and (millimeters)

**Maximum Ratings and Electrical Characteristics**

Ratings at 25 °C ambient temperature unless otherwise specified.  
 Single phase, half wave, 60Hz, resistive or inductive load.  
 For capacitive load, derate current by 20%.

Type Number	SYMBOL	SFA08G	Unit
Maximum Recurrent Peak Reverse Voltage	$V_{RRM}$	600	V
Maximum RMS Voltage	$V_{RMS}$	420	V
Maximum DC Blocking Voltage	$V_{DC}$	600	V
Maximum average forward rectified current 0.375"(9.5mm) lead length at $T_A=55^{\circ}C$	$I_{F(AV)}$	10.0	A
Peak forward surge current 8.3ms single half sine-wave superimposed on rated load (JEDEC Method)	$I_{FSM}$	200	A
Maximum instantaneous forward voltage at 5.0A	$V_{FM}$	1.7	V
Peak Reverse Current @ $T_A=25^{\circ}C$	$I_R$	10	uA
At Rated DC Blocking Voltage @ $T_A=100^{\circ}C$		100	
Maximum reverse recovery time (NOTE 1)	$T_{RR}$	35	ns
Typical Junction Capacitance (Note 2)	$C_J$	50	pF
Typical Thermal Resistance Junction to Ambient(Note 3)	$R_{\theta JA}$	20	$^{\circ}C/W$
Operating and Storage Temperature Range	$T_J, T_{STG}$	-55 to + 150	$^{\circ}C$

**NOTES:**

- 1- Reverse Recovery Test Conditions :  $I_F=.5A$  ,  $I_R=1A$  ,  $I_{RR}=.25A$ .
- 2- Measured at 1 MHz and applied reverse voltage of 4.0 VDC.
- 3- Thermal Resistance Junction to Ambient and form junction to lead at 0.375"(9.5mm) lead length P.C.B. Mounted.

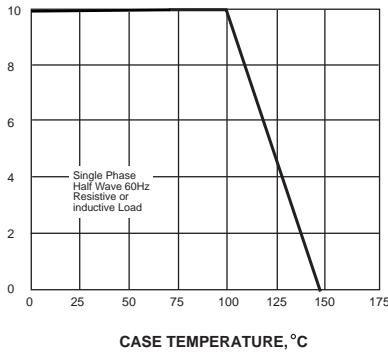




### Characteristic Curves ( $T_A=25^\circ\text{C}$ unless otherwise noted)

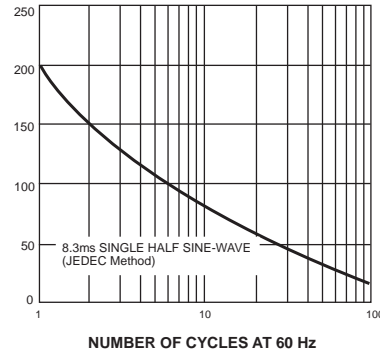
AVERAGE FORWARD RECTIFIED CURRENT,  
AMPERES

FIG. 1- FORWARD CURRENT DERATING CURVE



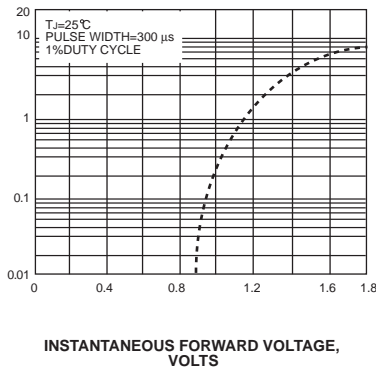
PEAK FORWARD SURGE CURRENT,  
AMPERES

FIG. 2-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT



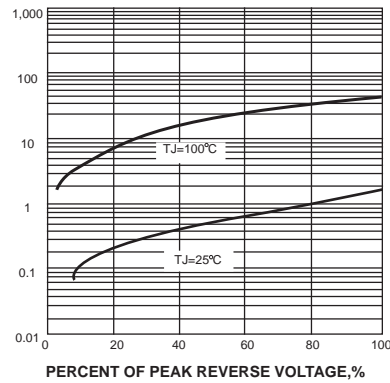
INSTANTANEOUS FORWARD  
CURRENT, AMPERES

FIG. 3-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS



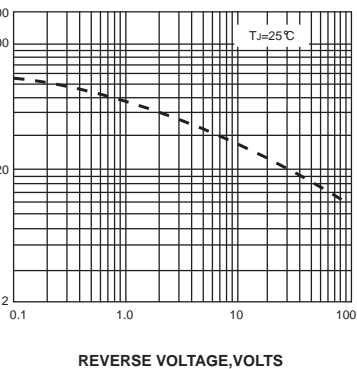
INSTANTANEOUS REVERSE CURRENT,  
MICROAMPERES

FIG. 4-TYPICAL REVERSE CHARACTERISTICS



JUNCTION CAPACITANCE, pF

FIG. 5-TYPICAL JUNCTION CAPACITANCE



TRANSIENT THERMAL IMPEDANCE,  
 $^\circ\text{C}/\text{W}$

FIG. 6-TYPICAL TRANSIENT THERMAL IMPEDANCE

