



PINGWEI ENTERPRISE

## SF51G THRU SF58G

### 5.0AMPS.GLASS PASSIVATED SUPER FAST RECTIFIERS

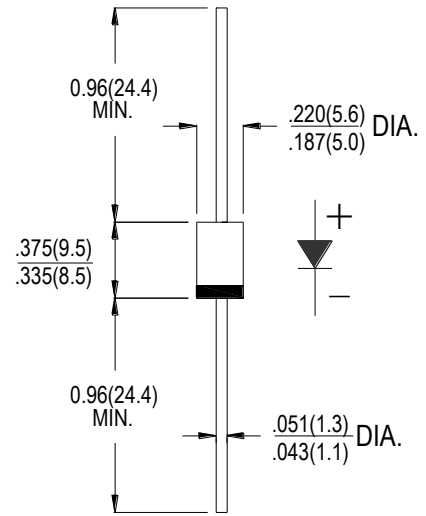
#### FEATURE

- . High current capability
- . Low forward voltage drop
- . Low power loss, high efficiency
- . High surge capability
- . High temperature soldering guaranteed  
260 °C /10sec/ 0.375" lead length at 5 lbs tension
- . Super fast recovery time for high efficiency.

#### MECHANICAL DATA

- . Terminal: Plated axial leads solderable per MIL-STD 202E, method 208C
- . Case: Molded with UL-94 Class V-0 recognized Flame Retardant Epoxy
- . Polarity: color band denotes cathode
- . Mounting position: any

#### DO-27/DO-201AD



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	SF51G	SF52G	SF53G	SF54G	SF55G	SF56G	SF57G	SF58G	units
Maximum Recurrent Peak Reverse Voltage	$V_{RRM}$	50	100	150	200	300	400	500	600	V
Maximum RMS Voltage	$V_{RMS}$	35	70	105	140	210	280	350	420	V
Maximum DC blocking Voltage	$V_{DC}$	50	100	150	200	300	400	500	600	V
Maximum Average Forward Rectified Current .375"(9.5mm) lead length at $T_A = 55^\circ\text{C}$	$I_{F(AV)}$	3.0								A
Peak Forward Surge Current 8.3ms single half sine-wave superimposed on rated load (JEDEC method)	$I_{FSM}$	150.0								A
Maximum Instantaneous forward Voltage at 5.0A DC	$V_F$	0.95				1.3		1.7		V
Maximum DC Reverse Current @ $T_A = 25^\circ\text{C}$ at rated DC blocking voltage @ $T_A = 125^\circ\text{C}$	$I_R$	5.0				100.0				$\mu\text{A}$
Maximum Reverse Recovery Time (Note 1)	$t_{rr}$	35								ns
Typical Junction Capacitance (Note 2)	$C_J$	120				90				pF
Typical Thermal Resistance (Note 3)	$R_{(JA)}$	50								$^\circ\text{C/W}$
Storage Temperature	$T_{STG}$	-55 to +150								$^\circ\text{C}$
Operation Junction Temperature	$T_J$	-55 to +150								$^\circ\text{C}$

#### Note:

1. Test Conditions:  $I_F = 0.5\text{A}$ ,  $I_R = 1.0\text{A}$ ,  $I_{RR} = 0.25\text{A}$
2. Measured at 1.0 MHz and applied reverse voltage of 4.0Vdc
3. Thermal Resistance from Junction to Ambient at 0.375" (9.5mm) lead length, vertical P.C. Board Mounted.