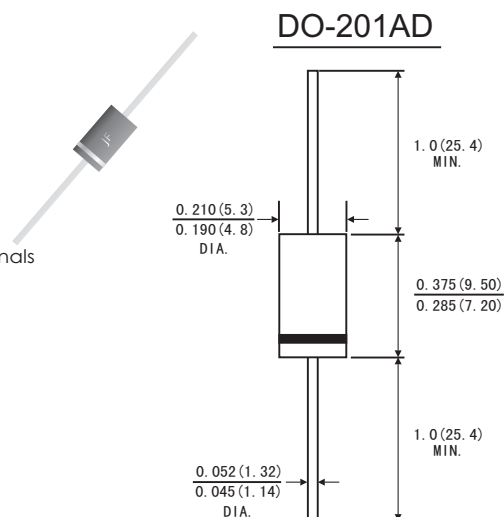


### FEATURES

- Low forward voltage drop
- High current capability
- High reliability
- High surge current capability
- Lead (Pb)-free component
- Component in accordance to RoHS 2011/65/EU
- High temperature soldering guaranteed: 260°C/10 seconds at terminals

### MECHANICAL DATA

- Case: JEDEC DO-201AD molded plastic body
- Terminals: Plated axial leads, solderable per MIL-STD-750, method 2026
- Polarity: Color band denotes cathode end
- Mounting Position: Any
- Weight: 0.041 ounce, 1.15 grams



Dimensions in inches and (millimeters)

### MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

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

	Symbols	SF 31G	SF 32G	SF 33G	SF 34G	SF 35G	SF 36G	SF 37G	SF 38G	Units
Maximum Repetitive Peak Reverse Voltage	$V_{RRM}$	50	100	150	200	300	400	500	600	Volts
Maximum RMS Voltage	$V_{RMS}$	35	70	105	140	210	280	350	420	Volts
Maximum DC Blocking Voltage	$V_{DC}$	50	100	150	200	300	400	500	600	Volts
Maximum Average Forward Rectified Current 0.375" (9.5mm) Lead Length @ $T_A=55^\circ\text{C}$	$I_{(AV)}$	3.0								Amps
Peak Forward Surge Current 8.3ms single half sine-wave superimposed on rated load (JEDEC Method)	$I_{FSM}$	80								Amps
Maximum Instantaneous Forward Voltage at 3.0 A	$V_F$	0.95			1.3			1.7		Volts
Maximum DC Reverse Current At Rated DC Blocking Voltage	$T_A=25^\circ\text{C}$	5.0								$\mu\text{A}$
	$T_A=100^\circ\text{C}$									
Maximum Reverse Recovery Time (Note 1)	$T_{rr}$	35								ns
Typical Thermal Resistance (NOTE 3)	$R_{\theta JA}$	35								$^\circ\text{C}/\text{W}$
Operating Temperature Range	$T_J$	-55 to +150								$^\circ\text{C}$
Storage Temperature Range	$T_{STG}$	-55 to +150								$^\circ\text{C}$

- Note: 1. Reverse Recovery Test conditions:  $I_F=0.5\text{A}$ ,  $I_R=1.0\text{A}$ ,  $I_{RR}=0.25\text{A}$ .  
 2. Measured at 1MHz and applied reverse voltage of 4.0 Volts.  
 3. Mount on Cu-Pad Size 16mmX16mm on PCB.

# RATINGS AND CHARACTERISTIC CURVES SF31G THRU SF38G

FIG.1-MAXIMUM AVERAGE FORWARD CURRENT DERATING

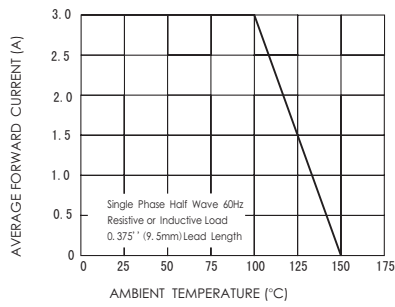


FIG.2-MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

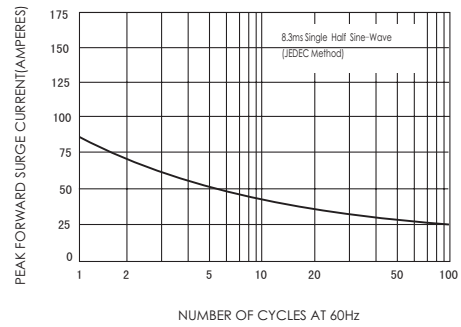


FIG.3-TYPICAL FORWARD CHARACTERISTICS

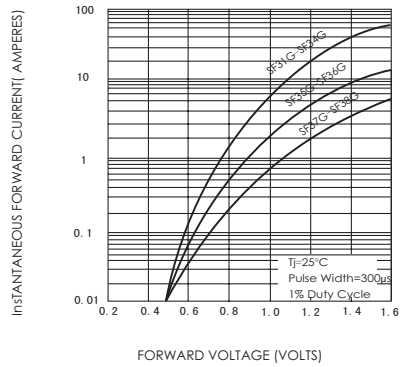


FIG.4-TYPICAL REVERSE CHARACTERISTICS

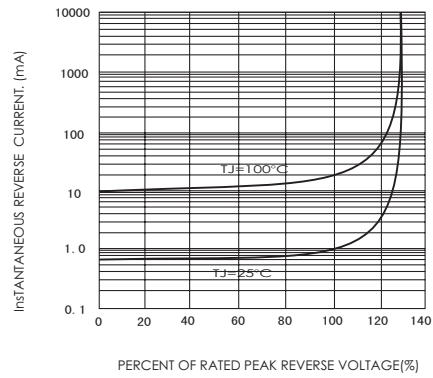


FIG.5-TYPICAL JUNCTION CAPACITANCE

