

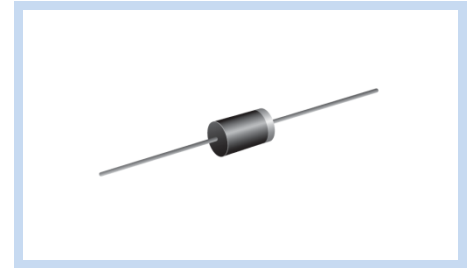
# Rectifier Superfast Recovery Type

SF51G to SF58G

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## FEATURES

- Surge Overload rating: 150 amperes peak
- Forward Current: 5.0A
- Reverse Voltage: 50~1000V
- Superfast recovery times
- Low leakage current
- Glass Passivated Die Construction



## ELECTRICAL CHARACTERISTICS

Parameter	Symbol	SF51G	SF52G	SF53G	SF54G	SF55G	SF56G	SF58G	Units
Maximum Recurrent Peak Reverse Voltage	$V_{RRM}$	50	100	150	200	300	400	600	V
Maximum RMS Voltage	$V_{RMS}$	35	70	105	140	210	280	420	
Maximum DC Blocking Voltage	$V_{DC}$	50	100	150	200	300	400	600	
Maximum Average Forward Rectified Current 0.375" (9.5mm) Lead Length at $T_A=55^\circ\text{C}$	$I_{(AV)}$	5.0							A
Peak Forward Surge Current, 8.3ms single half-sine-wave superimposed on rated load (JEDEC method)	$I_{FSM}$	150.0							
Maximum Forward Voltage at 5.0A DC and $25^\circ\text{C}$	$V_F$	0.95				1.3		1.7	V
Maximum Reverse Current at Rated DC Blocking Voltage $T_A=25^\circ\text{C}$	$I_R$	5.0							$\mu\text{A}$
Maximum Reverse Current at Rated DC Blocking Voltage $T_A=100^\circ\text{C}$	$I_R$	100							
Typical Junction Capacitance (Note 1)	$C_J$	120				60			pF
Typical Thermal Resistance (Note 2)	$R_{\theta JA}$	20.0							$^\circ\text{C/W}$
Maximum Reverse Recovery Time (Note 3)	$T_{RR}$	35							ns
Operating and Storage Temperature Range	$T_J, T_{stg}$	-65~+150							$^\circ\text{C}$

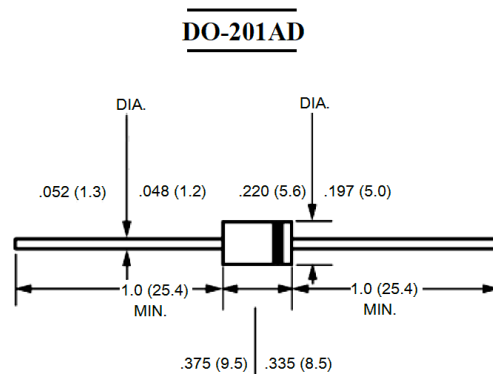
1. Measured at 1 MHz and applied reverse voltage of 4.0 VDC.

2. Thermal Resistance Junction to Ambient and from junction to lead at 0.375" (9.5mm) lead length P.C.B. Mounted.

3. Reverse Recovery Test Conditions :  $I_F=0.5\text{A}$ ,  $I_R=1\text{A}$ ,  $I_{RR}=0.25\text{A}$ .

4. Ratings at  $25^\circ\text{C}$  ambient temperature unless otherwise specified. Single phase, half wave, 60HZ, resistive or inductive load. For capacitive load, derate current by 20%.

## DO-201AD DIMENSIONS



Dimensions in Inches and (mm)

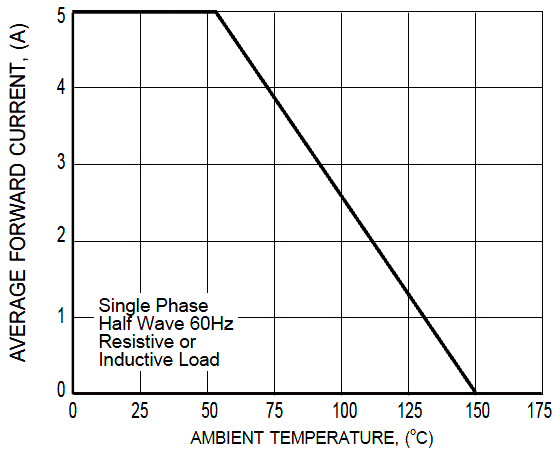
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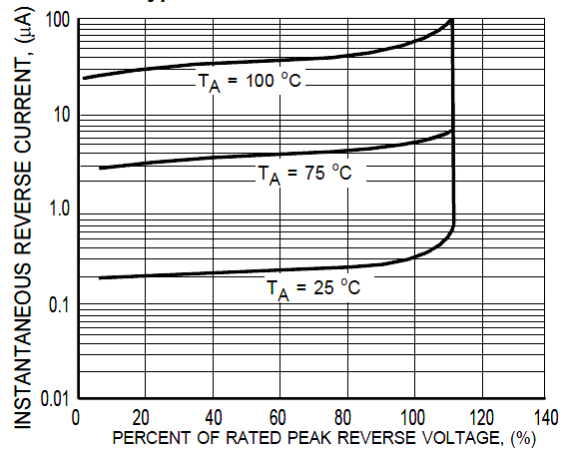
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## CHARACTERISTIC CURVES

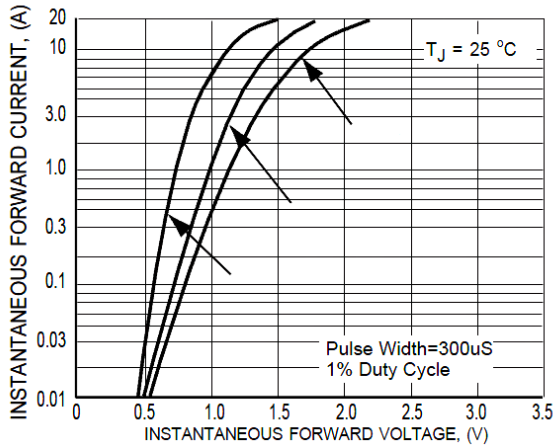
Typical Forward Current Derating Curve



Typical Reverse Characteristics



Typical Instantaneous Forward Characteristics



Maximum Non-Repetitive Forward Surge Current

