SF51G THRU SF58G

5.0 AMPS. Glass Passivated Super Fast Rectifiers

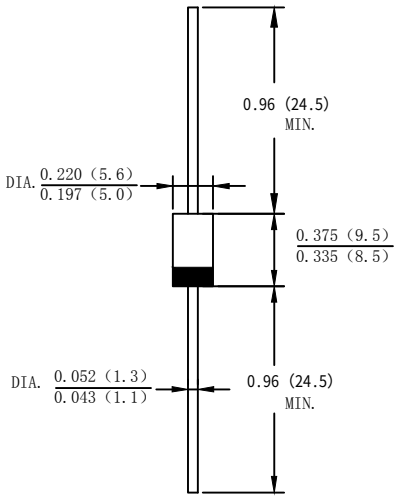
Features

- Low forward voltage drop
- High current capability
- High reliability
- High surge current capability
- Plastic material-UL flammability 94V-0

Mechanical Data

- Case: Molded plastic DO-201AD
- Terminals: Plated leads solderable per MIL-STD-202,Method 208 guaranteed
- Polarity: Color band dentes cathode end
- Mounting Position: Any
- Making: Type Number
- Lead Free: For RoHS/Lead Free Version

DO-201AD



Dimensions in inches and (millimeters)

Maximum Ratings and Electrical Characteristics

Rating at 25℃ 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	SF58G	Unit
Maximum Recurrent Peak Reverse Voltage	V_{RRM}	50	100	150	200	300	400	600	V
Maximum RMS Voltage	V_{RMS}	35	70	104	140	210	280	420	V
Maximum DC Blocking Voltage	V_{DC}	50	100	150	200	300	400	600	V
Maximum Average Forward Rectified Current.375"(9.5mm) lead length@T_L=100℃	IF(AV)	5.0							A
Peak Forward Surge Current 8.3ms Single half sine-wave superimposed on rated load (JEDEC Method)	I_{FSM}	150							A
I^2t Rating for Fusing (t < 8.3ms)	I^2t	93.375							A^2s
Forward Voltage @IF=5.0A	V_{FM}	0.95				1.30		1.7	V
Peak Reverse Current @T_A=25℃		5.0							uA
At Rated DC Blocking Voltage @T_A=125℃		100							
Typical Junction Capacitance (Note 1)	C_J	45							pF
Typical Thermal Resistance Junction to Ambient(Note 2)	$R_{\theta JA}$	25							℃/W
Maximum Reverse Recovery Time(Note 3)	Trr	35							ns
Operating Temperature Range	T_J	-55 to +150							℃
/Storage Temperature Range	T_{STG}	-55 to +150							℃

Note:1. Measured at 1.0 MHz and Applied reverse Voltage of 4.0V D.C

2. Leads maintained at ambient temperature at a distance of 9.5mm from the case

3.Reverse Recovery Test Conditions: IF=0.5A, IR=1A, Irr=0.25A

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FIG. 1 – FORWARD CURRENT DERATING CURVE

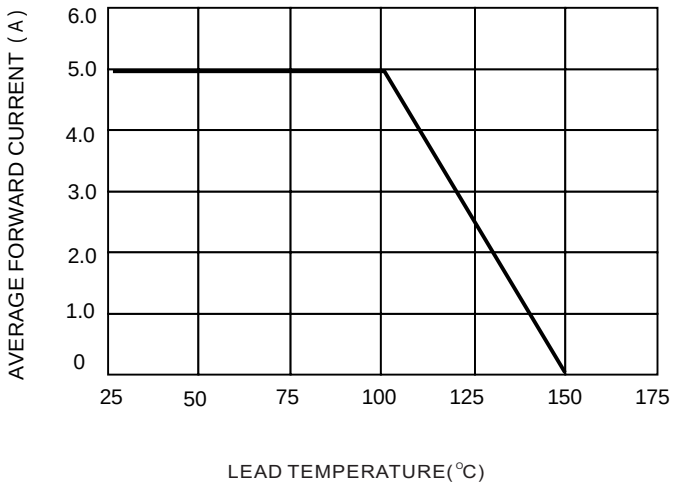


FIG.2-TYPICAL FORWARD CHARACTERISTICS

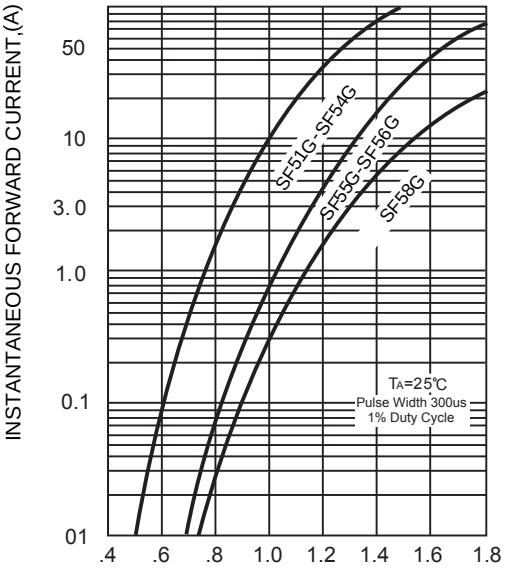


FIG. 3 – MAXIMUM NON-REPETITIVE SURGE CURRENT

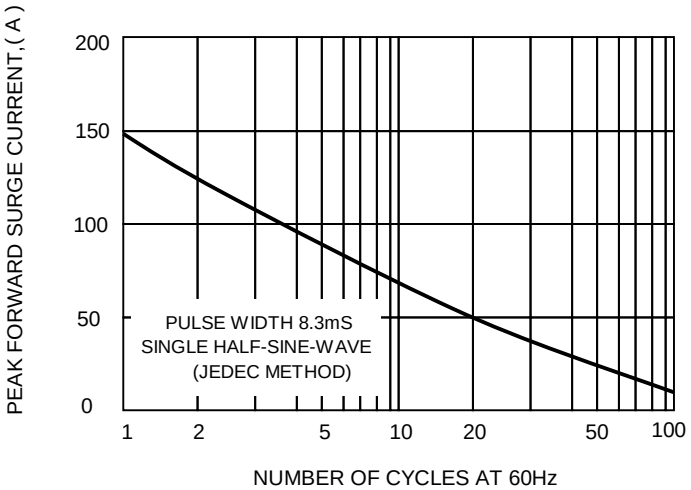
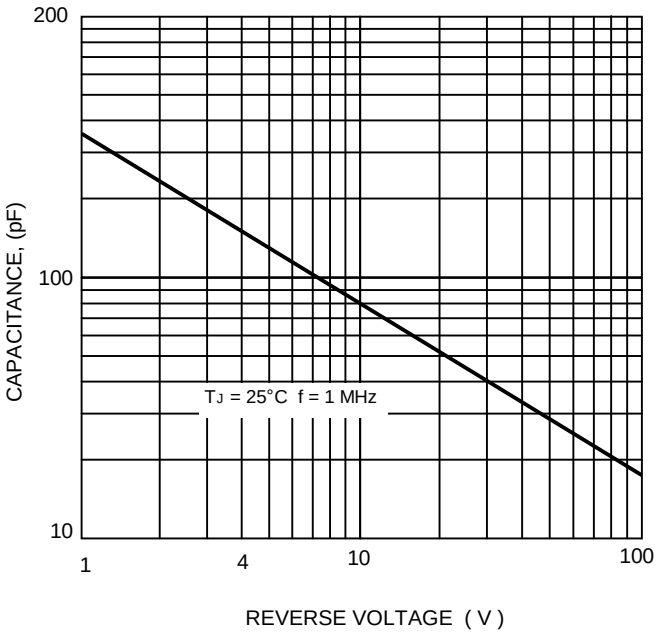


FIG.4 – TYPICAL JUNCTION CAPACITANCE



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