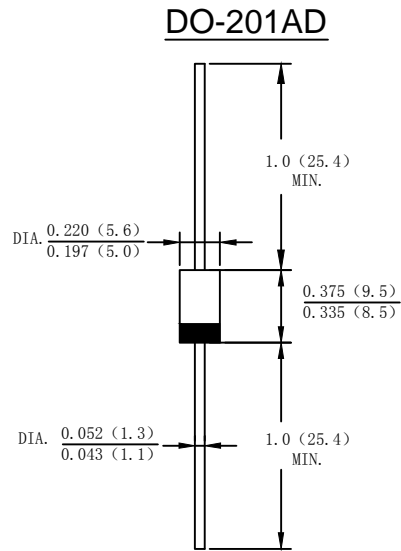


Features

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

Mechanical Data

- Case: Moeded 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



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%

Type Number	SYMBOL	SF51	SF52	SF53	SF54	SF55	SF56	SF58	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 @ $T_A=55^\circ C$	I_o	5.0							A
Peak Forward Surge Current 8.3ms Single half sine-wave superimposed on rated load (JEDEC Method)	I_{FSM}	150							A
Forward Voltage @ $I_F=5.0A$	V_{FM}	0.95			1.30		1.7		V
Peak Reverse Current @ $T_A=25^\circ C$	I_R	5.0							uA
At Rated DC Blocking Voltage @ $T_A=100^\circ C$		100							
Typical Junction Capacitance (Note 1)	C_J	90			75				pF
Typical Thermal Resistance Junction to Ambient(Note 2)	$R_{\theta JA}$	10							$^\circ C/W$
Maximum Reverse Recovery Time(Note 3)	T_{rr}	35							ns
Operating Temperature Range	T_J	-55 to +125							$^\circ C$
/Storage Temperature Range	T_{STG}	-55 to +150							$^\circ C$

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: $I_F=0.5A$, $I_R=1A$, $I_{rr}=0.25A$

FIG. 1 – FORWARD CURRENT DERATING CURVE

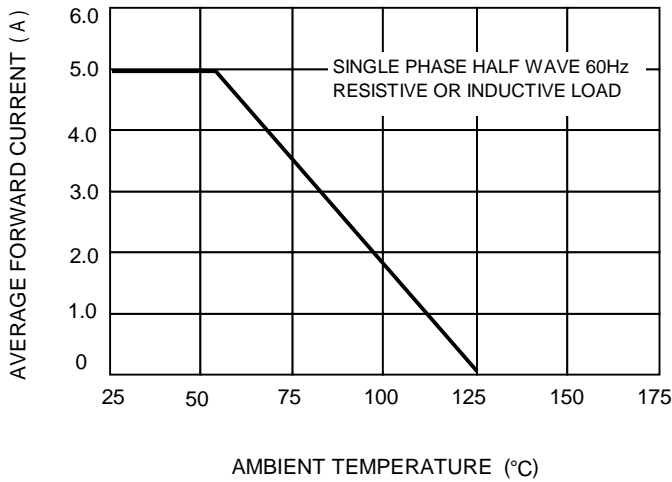


FIG.2-TYPICAL FORWARD CHARACTERISTICS

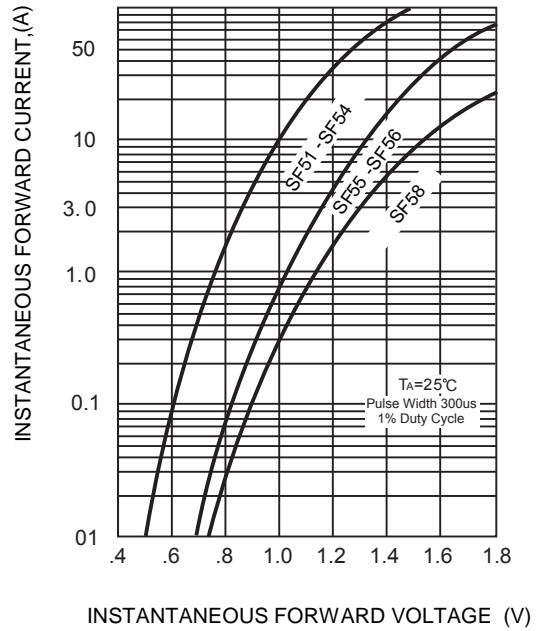


FIG. 3 – MAXIMUM NON-REPETITIVE SURGE CURRENT

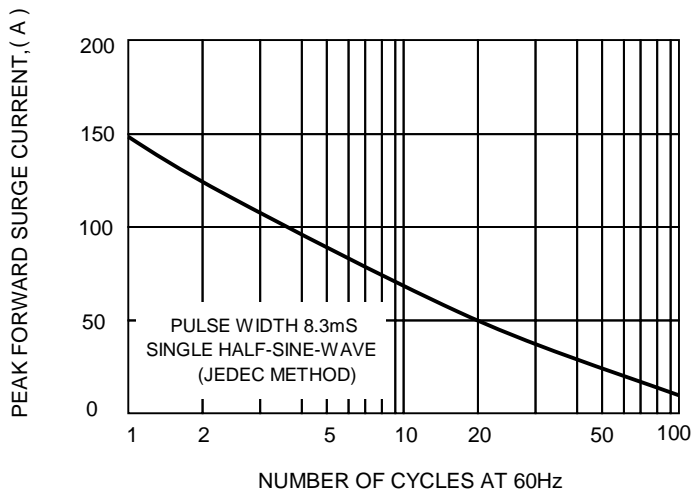


FIG.4 – TYPICAL JUNCTION CAPACITANCE

