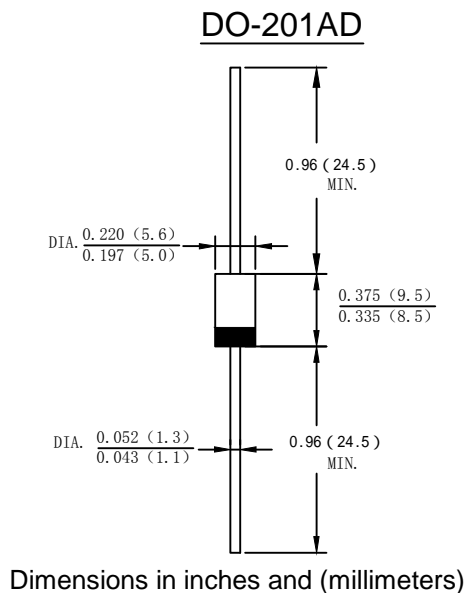


### Features

- Plastic package has Underwriters Laboratory Flammability Classification 94V-0 utilizing Flame Retardant Epoxy Molding Compound.
- Guard ring for overvoltage protection
- High current capability, low forward voltage drop
- Low power loss, high efficiency
- High surge capability

### Mechanical Data

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



### 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	SR 520U	SR 530U	SR 540U	SR 545U	SR 550U	SR 560U	SR 580U	SR 5100U	SR 5150U	SR 5200U	SR 5250U	Unit	
Maximum Recurrent Peak Reverse Voltage	$V_{RRM}$	20	30	40	45	50	60	80	100	150	200	250	V	
Maximum RMS Voltage	$V_{RMS}$	14	21	28	31.5	35	42	56	70	105	140	175	V	
Maximum DC Blocking Voltage	$V_{DC}$	20	30	40	45	50	60	80	100	150	200	250	V	
Average Rectified Output Current (Note 1) @ $T_L=100^\circ\text{C}$	$I_F(AV)$	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 ( $t < 8.3\text{ms}$ )	$I^2t$	93.375											$\text{A}^2\text{s}$	
Forward Voltage @ $I_F=5.0\text{A}$	$V_{FM}$	0.53			0.67			0.82		0.90		0.92		V
Peak Reverse Current @ $T_A=25^\circ\text{C}$	$I_R$	0.2						0.05						mA
At Rated DC Blocking Voltage @ $T_A=100^\circ\text{C}$		10.0						5.0						
Typical Junction Capacitance (Note 2)	$C_J$	500						350						pF
Typical Thermal Resistance Junction to Ambient (Note 1)	$R_{\theta JA}$	25											$^\circ\text{C}/\text{W}$	
Operating Temperature Range	$T_J$	-55 to +150											$^\circ\text{C}$	
Storage Temperature Range	$T_{STG}$	-55 to +150											$^\circ\text{C}$	

Note: 1. Leads maintained at ambient temperature at a distance of 9.5mm from the case

2. Measured at 1.0 MHz and Applied reverse Voltage of 4.0V D.C

FIG. 1 - FORWARD CURRENT DERATING CURVE

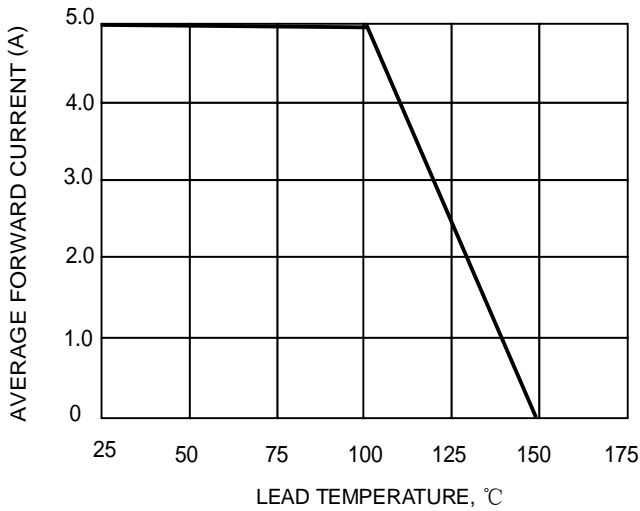


FIG.2-TYPICAL FORWARD CHARACTERISTICS

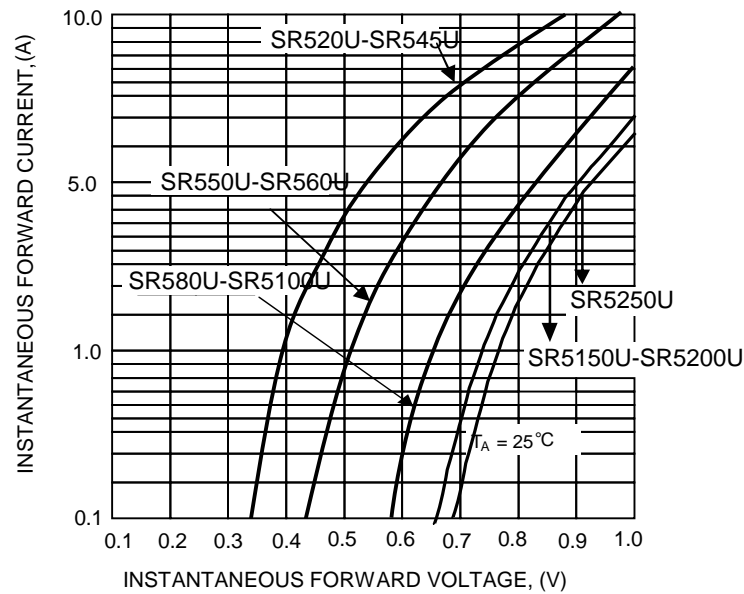


FIG. 3 MAXIMUM NON-REPETITIVE SURGE CURRENT

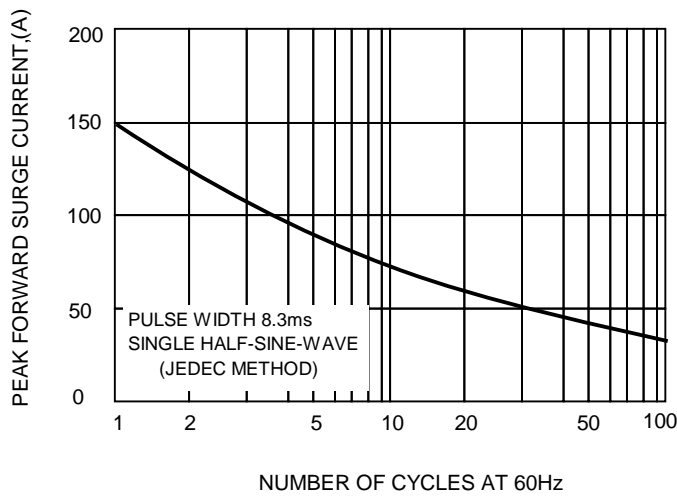
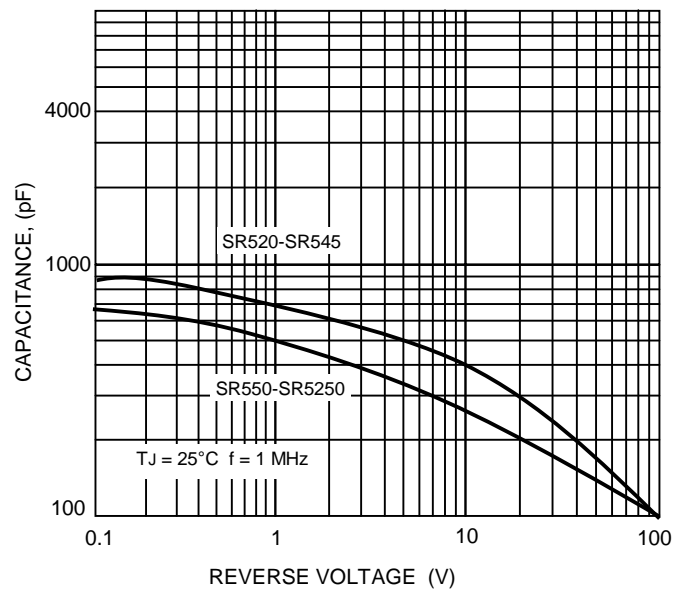


FIG.4 TYPICAL JUNCTION CAPACITANCE



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