

**5A Schottky Barrier Rectifiers**

**Features**

- Low Forward Voltage Drop
- High Current Capability
- High Reliability
- High Surge Current Capability
- RoHS Compliant



DO-201AD



**Mechanical Data**

<b>Case:</b>	DO-201AD, Molded Plastic
<b>Epoxy:</b>	UL 94V-0 rate flame retardant
<b>Terminals:</b>	Axial leads, solderable per MIL-STD-202, Method 208 guaranteed
<b>Polarity:</b>	Color band denotes cathode end
<b>Weight:</b>	1.2 grams

**Maximum Ratings and Electrical Characteristics** ( $T_A=25^{\circ}C$  unless noted otherwise)

Symbol	Description	TSR 520	TSR 530	TSR 540	TSR 550	TSR 560	TSR 580	TSR 5100	Unit	Conditions
<b>VRRM</b>	Max. Recurrent Peak Reverse Voltage	20	30	40	50	60	80	100	V	
<b>VRMS</b>	Max. RMS Voltage	14	21	28	35	42	56	70	V	
<b>VDC</b>	Max. DC Blocking Voltage	20	30	40	50	60	80	100	V	
<b>I<sub>AV</sub></b>	Max. Average Forward Rectified Current (FIG.1)	5.0							A	
<b>I<sub>FSM</sub></b>	Peak Forward Surge Current	150							A	8.3ms single half sine-wave superimposed on rated load (JEDEC Method)
<b>V<sub>F</sub></b>	Maximum Instantaneous Forward Voltage	0.55		0.70		0.85		V	IF=5.0 A	
<b>I<sub>R</sub></b>	Maximum DC Reverse Current at Rated DC Blocking Voltage	0.5							mA	TA=25° C
		50								TA=125° C

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## TSR520 - TSR5100

Symbol	Description	TSR 520	TSR 530	TSR 540	TSR 550	TSR 560	TSR 580	TSR 5100	Unit	Conditions
<b>C<sub>J</sub></b>	Typical Junction Capacitance	380							ρF	V <sub>R</sub> =4V, f=1MHz
<b>R<sub>thJA</sub></b>	Typical Thermal Resistance	10							°C / W	Note
<b>T<sub>J</sub></b>	Operating Junction Temperature Range	-65 to +125			-65 to +150				°C	
<b>T<sub>STG</sub></b>	Storage Temperature Range	-65 to +150								

**Note:** Thermal resistance junction to ambient vertical P.C. board mounting 0.5" (12.7mm) lead length.

### Typical Characteristics Curves

Fig.1- Typical Forward Current Derating Curve

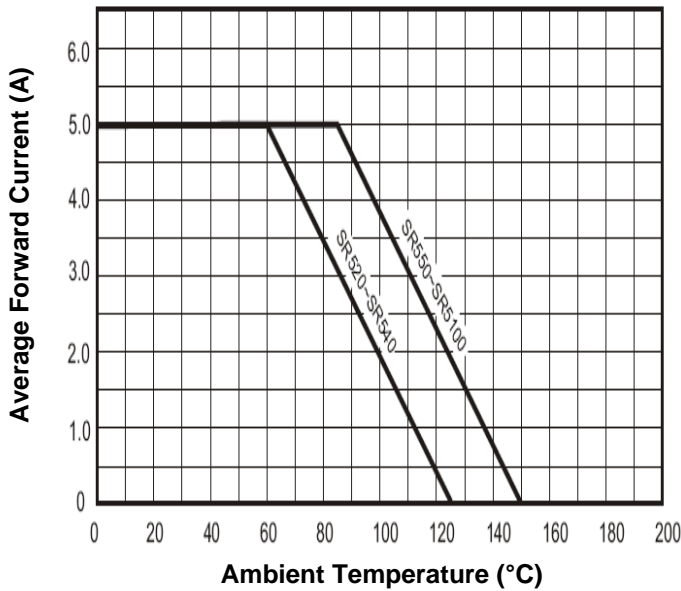
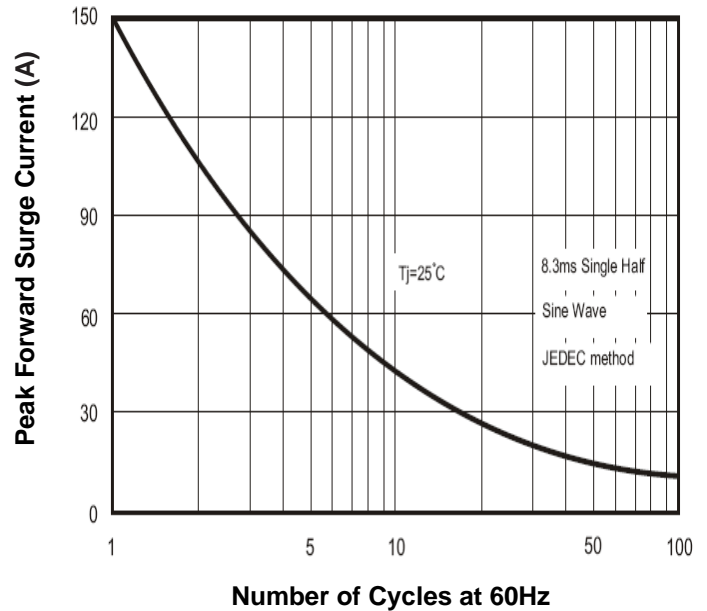


Fig.2- Maximum Non-repetitive Peak Forward Surge Current



## TSR520 - TSR5100

Fig.3- Typical Instantaneous Forward Characteristics

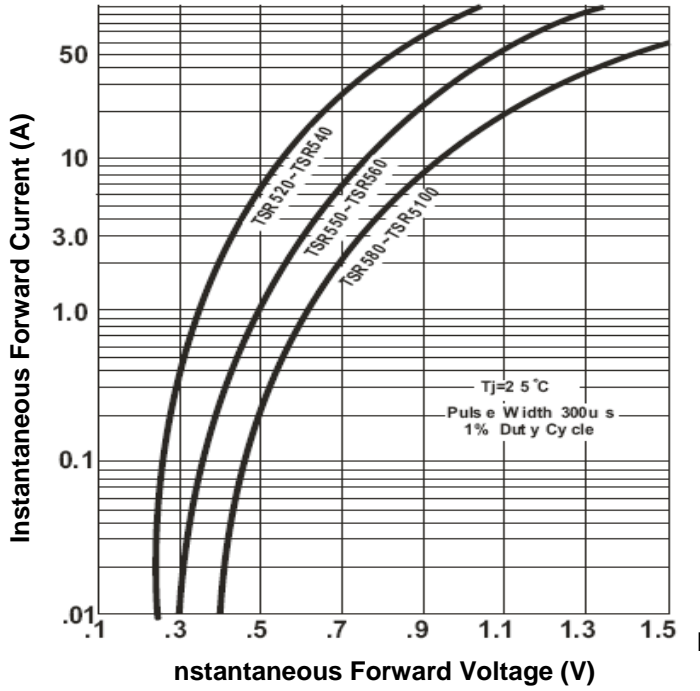


Fig.4- Typical Reverse Current

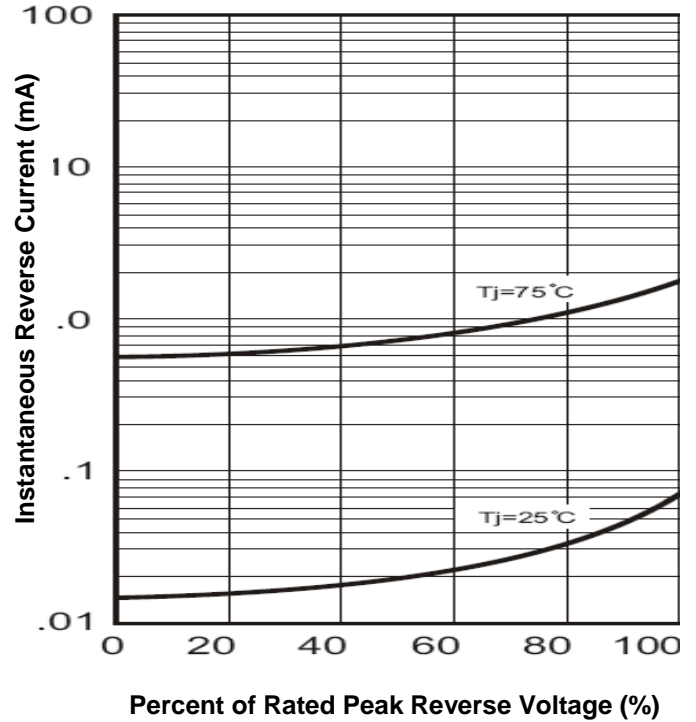
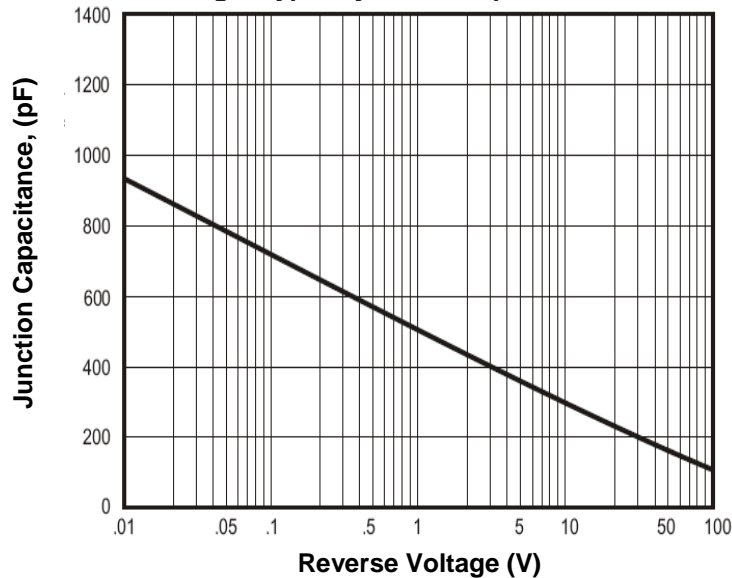
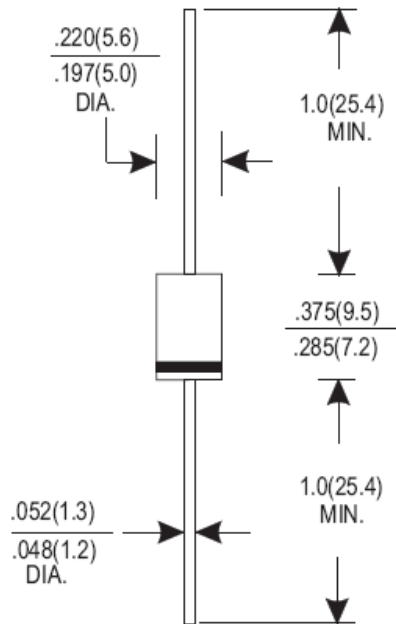


Fig.5-Typical junction capacitance



## Dimensions in inches (mm)



DO-201AD

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