

Features

- Low forward voltage drop
- High current capability
- High reliability
- High surge current capability



DO-201AD

Mechanical Data

- **Case:** DO-201AD, Molded plastic
- **Epoxy:** UL 94V-O rate flame retardant
- **Lead:** Axial leads,solderable per MIL-STD-202 method 208 guaranteed
- **Polarity:** Color band denotes cathode end
- **Weight:** 1.1 gram

Major Ratings and Characteristics

$I_{F(AV)}$	5.0 A
V_{RRM}	20 V to 200 V
I_{FSM}	150A
V_F	0.55V,0.70V,0.85V,0.95V
$T_J \text{ max.}$	125 °C

Maximum Ratings

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%.

Items	Symbol	SR 520	SR 530	SR 540	SR 550	SR 560	SR 580	SR 5100	SR 5150	SR 5200	UNIT
Maximum repetitive peak reverse voltage	V_{RRM}	20	30	40	50	60	80	100	150	200	V
Maximum RMS voltage	V_{RMS}	14	21	28	35	42	56	70	105	140	V
Maximum DC blocking voltage	V_{DC}	20	30	40	50	60	80	100	150	200	V
Maximum Average Forward Rectified Current	$I_{F(AV)}$	5.0									A
Peak Forward Surge Current, 8.3 ms single half sine-wave superimposed on rated load (JEDEC method)	I_{FSM}	150.0									A
Typical Thermal Resistance ⁽¹⁾	$R_{\theta JA}$	25.0									°C/W
Operating junction temperature	T_J	-65 to +125									°C
Storage temperature range	T_{STG}	-65 to +125									°C

Note 1: Thermal resistance from junction to ambient at 0.375"(9.5mm)lead length,P.C.B. mounted.

Electrical Characteristics ($T_A = 25^\circ\text{C}$ unless otherwise noted)

Items	Test conditions		Symbol	SR520~SR540	SR550~SR560	SR580~SR5100	SR5150~SR5200	UNIT
Maximum Instantaneous forward voltage	$I_F=5.0 \text{ A}$		V_F	0.55	0.70	0.85	0.95	V
Reverse current	$V_R=V_{DC}$	$T_J=25^\circ\text{C}$	I_R	0.50			0.2	mA
		$T_J=100^\circ\text{C}$		20.0			2.0	
Typical junction capacitance	4.0 V ,1MHz		C_J	500	400			pF

Rating and Characteristic Curves

Fig.1 Forward Current Derating Curve

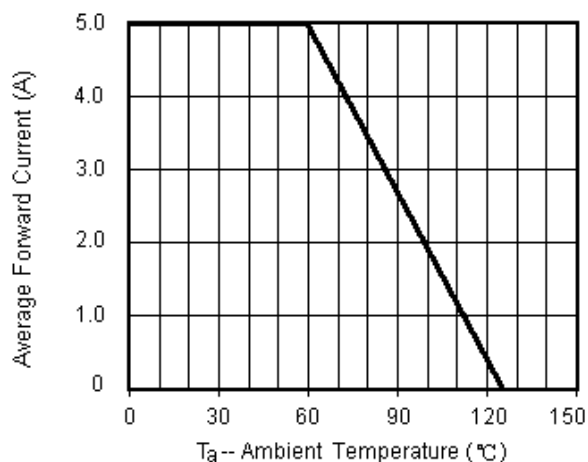


Fig.2 Maximum Non-Repetitive Peak Forward Surge Current

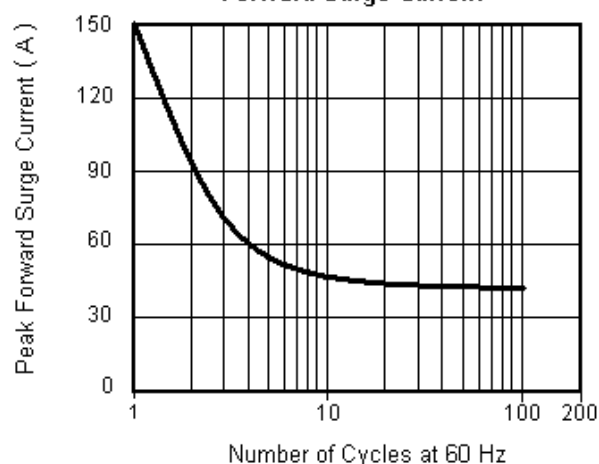


Fig.3 Typical Instantaneous Forward Characteristics

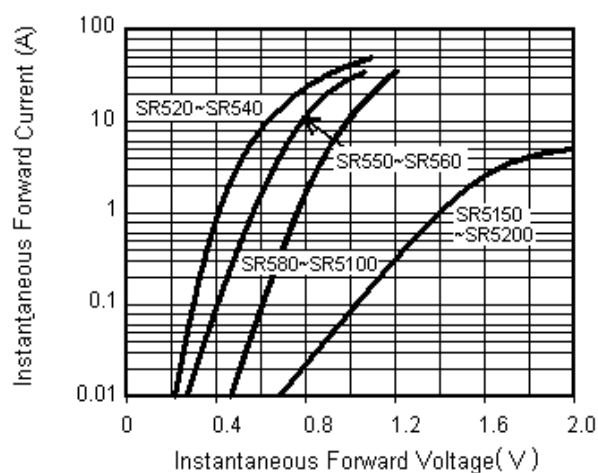
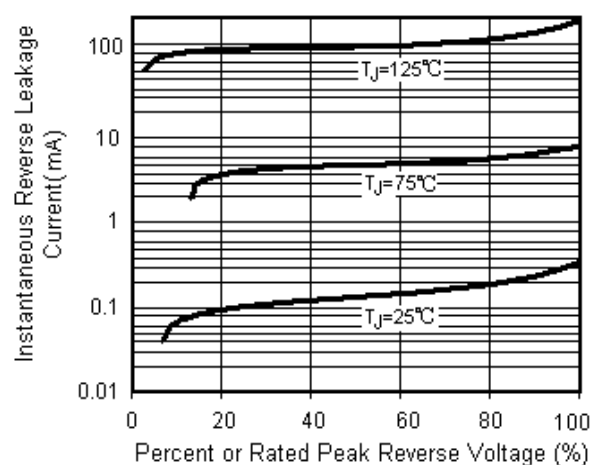
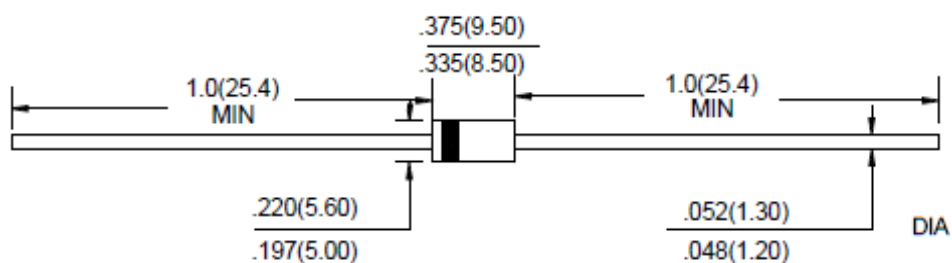


Fig.4 Typical Reverse Leakage Characteristics



Package Outline**DO-201AD**

Unit: inches (millimeters)