

**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
$T_j$ max.	125 °C

**Maximum Ratings**

Rating at 25°C ambient temperature unless otherwise specified

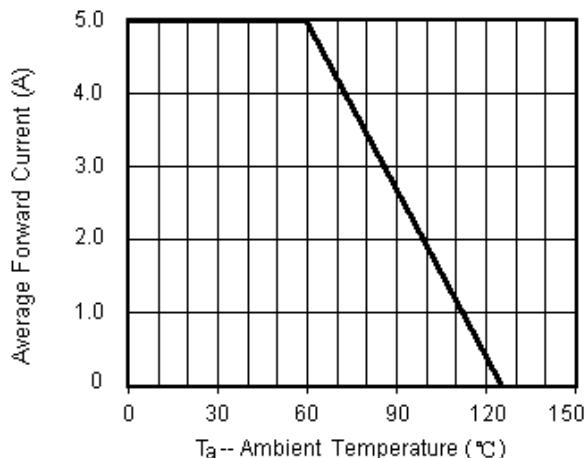
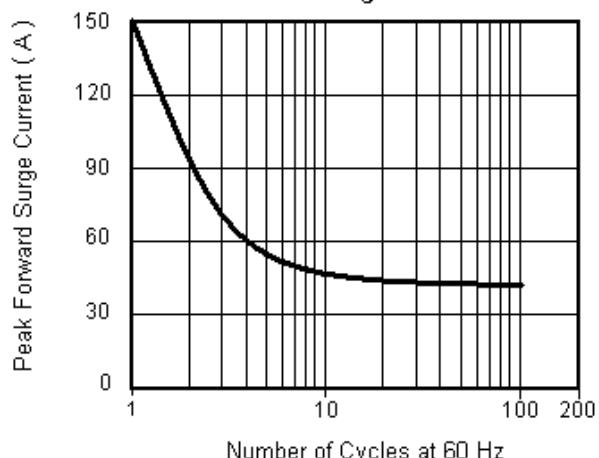
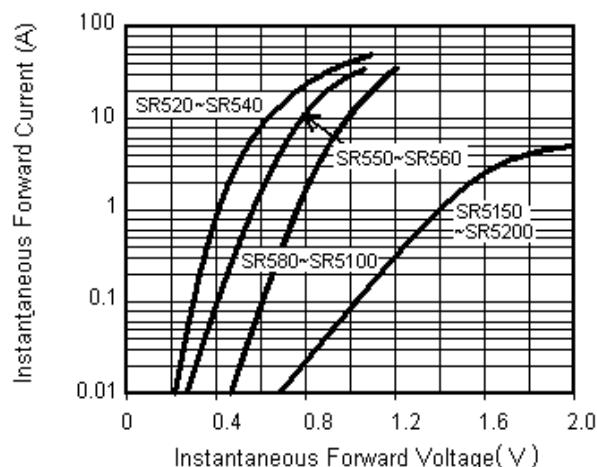
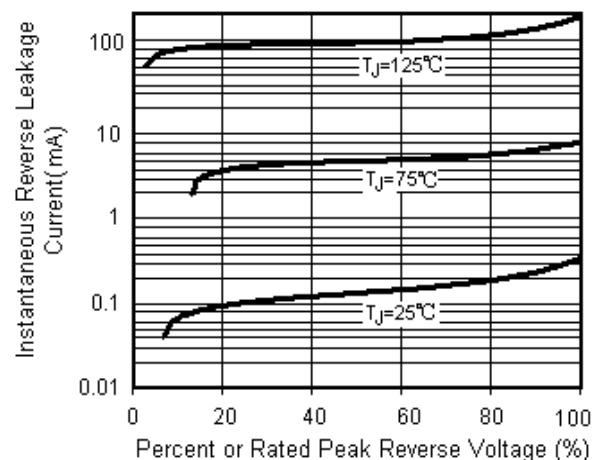
Single phase ,half wave, 60Hz,resistive or inductive load, For capacitive load, derate current by 20%.

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 <sup>(1)</sup>	$R_{\theta JA}$	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** ( $T_A = 25^\circ C$  unless otherwise noted)

Items	Test conditions		Symbol	SR520~SR540	SR550~SR560	SR580~SR5100	SR5150~SR5200	UNIT
Maximum Instantaneous forward voltage	$I_F=5.0$ A		$V_F$	0.55	0.70	0.85	0.95	V
Reverse current	$V_R=V_{DC}$	$T_J=25^\circ C$	$I_R$	0.50			0.2	mA
		$T_J=100^\circ C$		20.0		10.0	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**