

Features

- Low profile package
- Ideal for automated placement
- Ultrafast reverse recovery time
- Low power losses, high efficiency
- High surge capability
- High temperature soldering:
260°C/10 seconds at terminals
- Component in accordance to
RoHS 2002/95/1 and WEEE 2002/96/EC



SMA (DO – 214AC)

Major Ratings and Characteristics

$I_{F(AV)}$	2.0A
V_{RRM}	20 V to 200 V
I_{FSM}	50A
V_F	0.50V, 0.55V, 0.70V, 0.85V, 0.95V
$T_j \text{ max.}$	125 °C

Mechanical Date

- **Case:** JEDEC DO-214AC molded plastic
- **Terminals:** Solder plated, solderable per
J-STD-002B and JESD22-B102D
- **Polarity:** Laser band denotes cathode end

Maximum Ratings & Thermal Characteristics

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

Items	Symbol	SR 220	SR 230	SR 240	SR 250	SR 260	SR 280	SR 2100	SR 2150	SR 2200	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	$I_{F(AV)}$	2									A
Peak forward surge current 8.3 ms single half sine-wave superimposed on rated load	I_{FSM}	50									A
Voltage rate of change (rated V_R)	dv/dt	10000									V/ μ s
Thermal resistance from junction to lead ⁽¹⁾	$R_{\theta JL}$	35									°C/W
Operating junction and storage temperature range	T_J, T_{STG}	-65 to +125									°C

Note 1: Mounted on P.C.B. with 0.2 x 0.2" (5.0 x 5.0mm) copper pad areas.

Electrical Characteristics

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

Items	Test conditions	Symbol	SR 220	SR 230~240	SR 250~260	SR 280~2100	SR 2150~2200	UNIT
Instantaneous forward voltage	$I_F=2.0A^{(2)}$	V_F	0.50	0.55	0.70	0.85	0.95	V
Reverse current	$V_R=V_{DC}$	$T_J=25^\circ\text{C}$	I_R					mA
		$T_J=100^\circ\text{C}$						

Note 2: Pulse test:300 μ s pulse width,1% duty cycle.

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

Fig.1 Forward Current Derating Curve

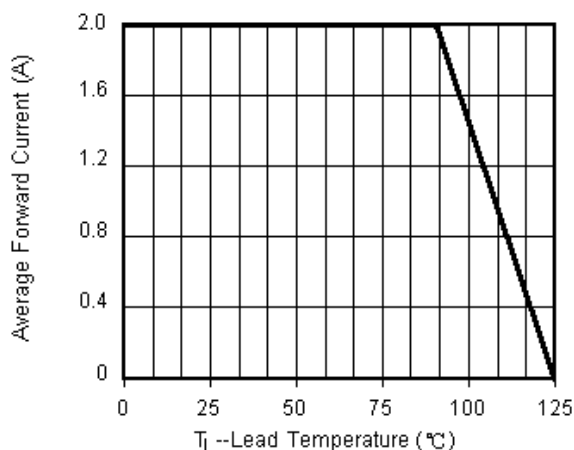


Fig.2 Maximum Non-Repetitive Peak Forward Surge Current

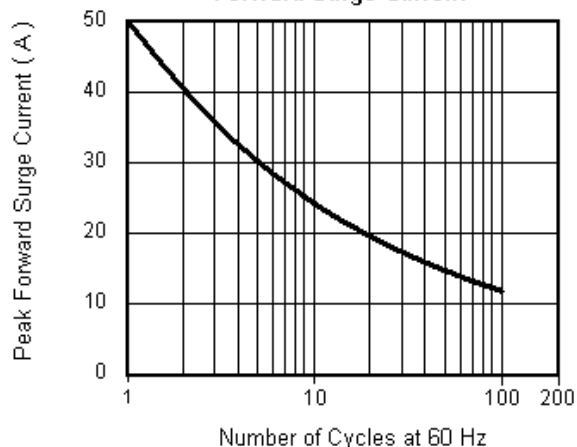


Fig.3 Typical Instantaneous Forward Characteristics

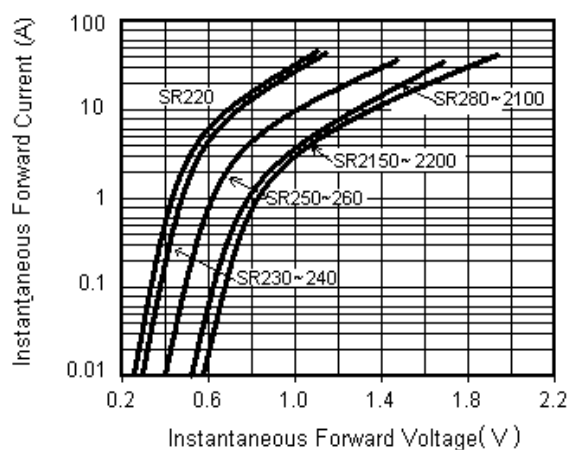
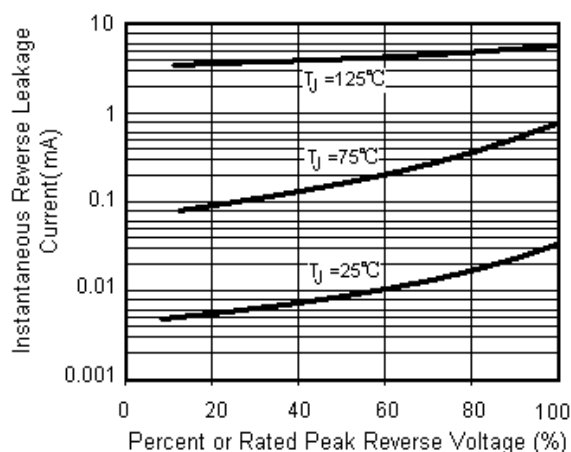


Fig.4 Typical Reverse Leakage Characteristics



Package Outline