

Features

- Low profile package
- Ideal for automated placement
- Ultrafast reverse recovery time
- Low power losses, high efficiency
- Low forward voltage drop
- High surge capability
- High temperature soldering:
260°C/10 seconds at terminals



SMA (DO-214AC)

Mechanical Data

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

Major Ratings and Characteristics

$I_{F(AV)}$	5.0A
V_{RRM}	20 V to 100 V
I_{FSM}	150A
V_F	0.50V, 0.55V, 0.70V, 0.85V
$T_j \text{ max.}$	125 °C

Maximum Ratings & Thermal Characteristics

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

Items	Symbol	SK52	SK53	SK54	SK55	SK56	SK58	SK510	UNIT
Maximum repetitive peak reverse voltage	V_{RRM}	20	30	40	50	60	80	100	V
Maximum RMS voltage	V_{RMS}	14	21	28	35	42	56	70	V
Maximum DC blocking voltage	V_{DC}	20	30	40	50	60	80	100	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	I_{FSM}	150							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 ($T_A = 25\text{ °C}$ unless otherwise noted)

Items	Test conditions		Symbol	SK52	SK53~54	SK55~56	SK58~510	UNIT
Instantaneous forward voltage	$I_F=5.0A^{(2)}$		V_F	0.50	0.55	0.70	0.85	V
Reverse current	$V_R=V_{DC}$	$T_A=25^{\circ}C$	I_R	0.5				mA
		$T_A=100^{\circ}C$		10		20		

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

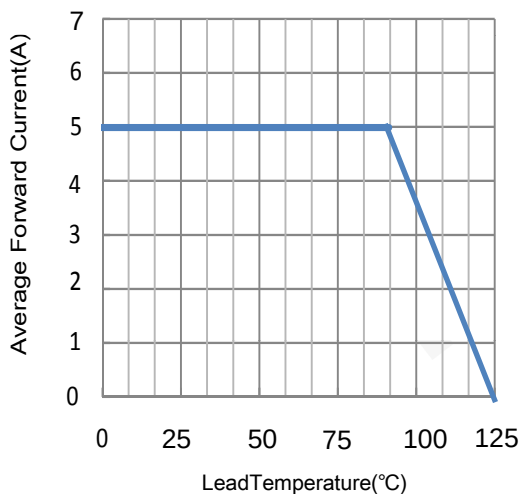


Fig.2 Maximum Non-Repetitive Peak Forward Surge Current

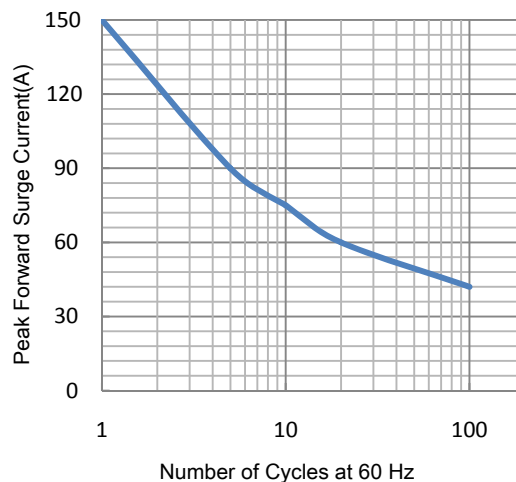


Fig.3 Typical Instantaneous Forward Characteristics

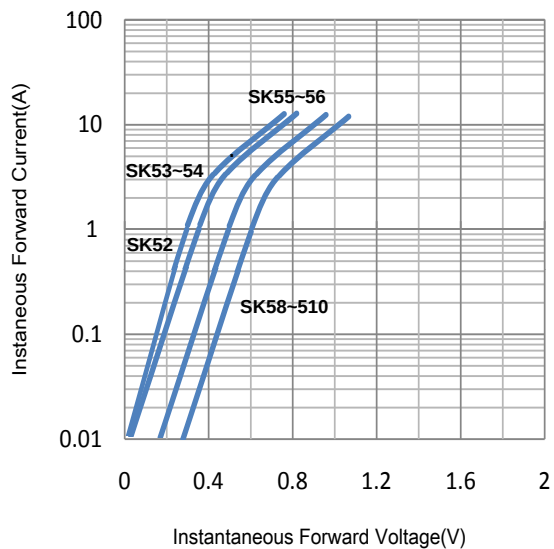
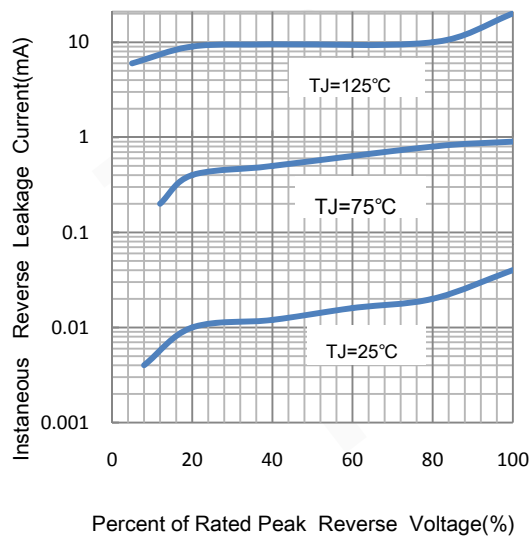
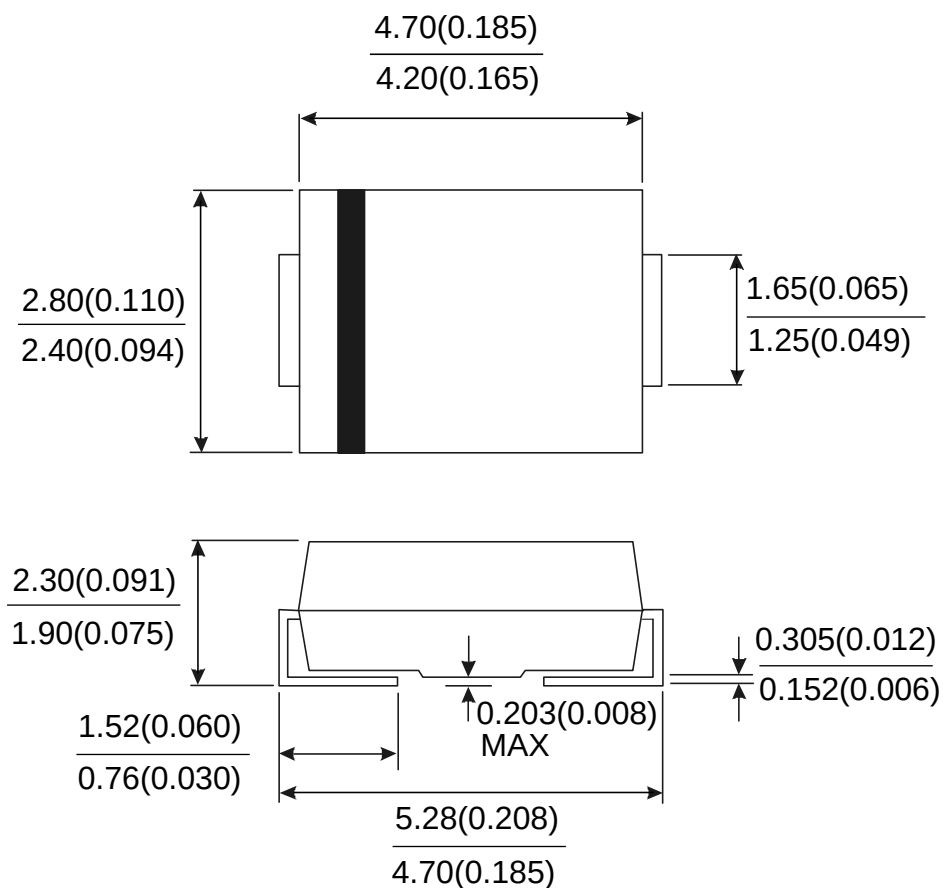


Fig.4 Typical Reverse Leakage Characteristics



Package Outline

SMA



- TRR is registered trademark of Zhejiang TRR Microelectronics Inc.. Zhejiang TRR Microelectronics Inc. reserves the right to make changes to any product in this specification without notice.
- Zhejiang TRR Microelectronics Inc. does not assure any liability arising out of the applications or use of any product described in this specification.
- Zhejiang TRR Microelectronics Inc. advises customers to obtain the latest version of the device information before placing orders to verify that the required information is current.