TRR®

SS12~SS120

Schottky rectifier

Features

- Low profile package
- Ideal for automated placement
- Low power losses, high efficiency
- Low forward voltage drop
- High surge capability
- High temperature soldering：
  260℃/10 seconds at terminals
- Component in accordance to
  RoHS 2002/95/1 and WEEE 2002/96/EC

SMA (DO－214AC)

Mechanical Date

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

Major Ratings and Characteristics

$I_{F(AV)}$	**1.0A**
V_{RRM}	**20 V to 200 V**
I_{FSM}	**40A**
V_F	**0.50V, 0.55V, 0.70V, 0.85V，0.95V**
T_j **max.**	**125 °C**

Maximum Ratings & Thermal Characteristics

(T_A = 25 °C unless otherwise noted)

Items	Symbol	SS12	SS13	SS14	SS15	SS16	SS18	SS110	SS115	SS120	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	$I_{F(AV)}$	1									A
Peak forward surge current 8.3 ms single half sine-wave superimposed on rated load	I_{FSM}	40									A
Voltage rate of change (rated V_R)	dv/dt	10000									V/μs
Thermal resistance from junction to lead (1)	$R_{\theta JL}$	35									℃/W
Operating junction and storage temperature range	T_J, T_{STG}	–65 to +125									℃

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 °C unless otherwise noted)

Items	Test conditions		Symbol	SS12	SS13~24	SS15~26	SS18~210	SS115~220	UNIT
Instantaneous forward voltage	I_F=1.0A(2)		V_F	0.50	0.55	0.70	0.85	0.95	V
Reverse current	V_R=V_{DC}	T_j=25℃	I_R	0.5					mA
		Tj=100℃		5.0					

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

Characteristic Curves (T_A=25 ℃ unless otherwise noted)

Fig.1 Forward Current Derating Curve

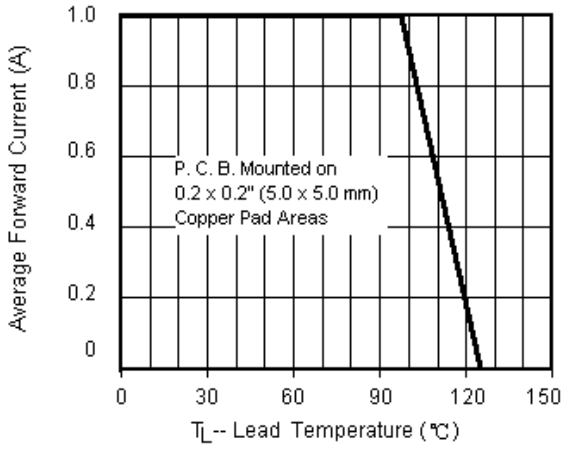


Fig.2 Maximum Non-Repetitive Peak Forward Surge Current

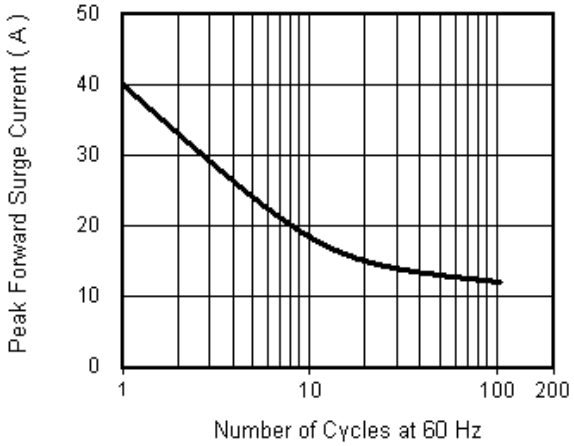


Fig.3 Typical Instantaneous Forward Characteristics

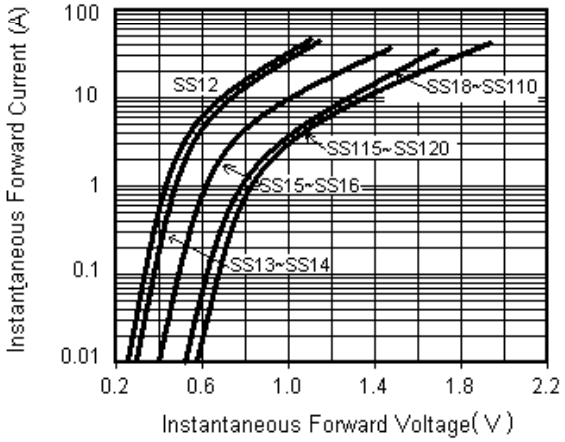
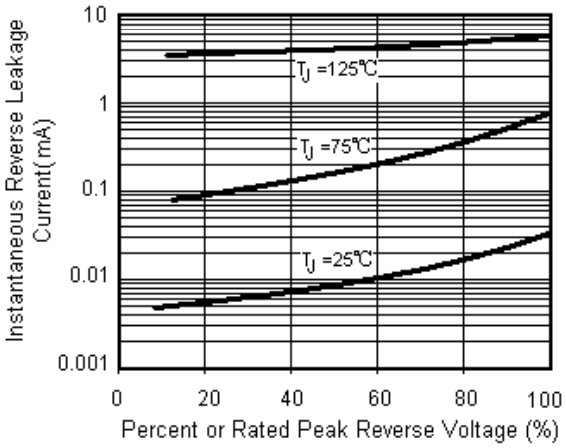
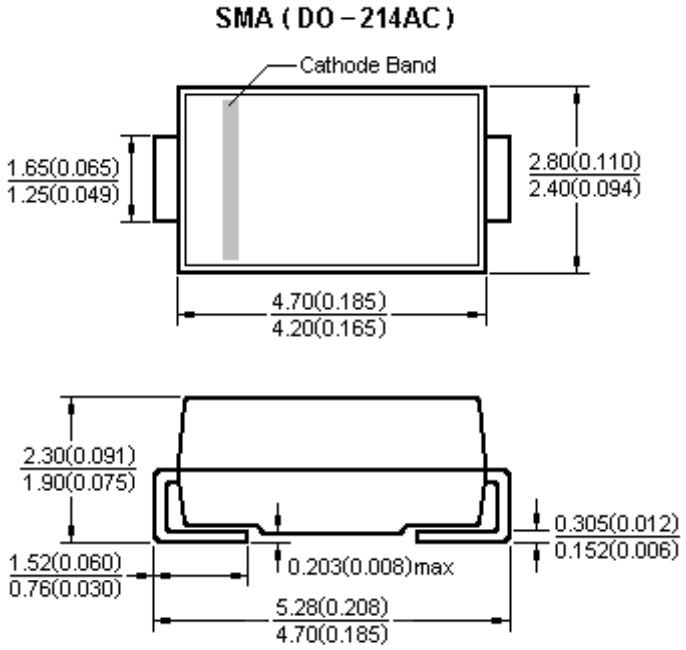


Fig.4 Typical Reverse Leakage Characteristics



Package Outline



Dimensions in millimeters and (inches)

Notice

- Product is intended for use in general electronics applications.
- Product should be worked less than the ratings; if exceeded, may cause permanent damage.or introduce latent failure mechanisms.
- The absolute maximum ratings are rated values and must not be exceeded during operation. The following are the general derating methods you design a circuit with a device.
  $I_{F(AV)}$: We recommend that the worst case current be no greater than 80% .
  T_J : Derate this rating when using a device in order to ensure high reliability. We recommend that the device be used at a T_J of below 100°C.