# SK12~SK110(SS12~SS110) SMB

## Schottky rectifier

## Major Ratings and Characteristics

| | |
|---|---|
| $I_{F(AV)}$ | 1.0 A |
| $V_{RRM}$ | 20 V to 100 V |
| $I_{FSM}$ | 40 A |
| $V_F$ | 0.50V,0.55 V , 0.70 V, 0.85V |
| $T_j$ max. | 125°C |

SMB ( DO – 214AA )

## 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℃/10 seconds at terminals
- Component in accordance to
  RoHS 2002/95/1 and WEEE 2002/96/EC

## Mechanical Date

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

SMB ( DO – 214AA )
Cathode Band

2.11(0.083)
1.91(0.075)

3.94(0.155)
3.30(0.130)

4.90(0.193)
4.30(0.169)

2.44(0.096)
2.13(0.084)

0.305(0.012)
0.152(0.006)

1.52(0.060)
0.76(0.030)

0.203(0.008)max

5.59(0.220)
5.21(0.205)
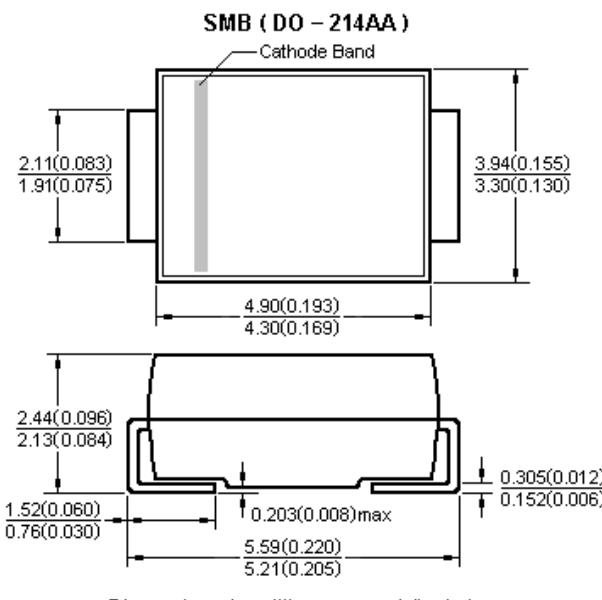
Dimensions in millimeters and (inchs)

## Maximum Ratings & Thermal Characteristics & Electrical Characteristics

($T_A$ = 25 °C unless otherwise noted)

| | Symbol | SK12 SS12 | SK13 SS13 | SK14 SS14 | SK15 SS15 | SK16 SS16 | SK18 SS18 | SK110 SS110 | 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 | $I_{F(AV)}$ | 1 | | | | | | | A |
| Peak forward surge current 8.3 ms single half sine-wave superimposed on rated load | $I_{FSM}$ | 40 | | | | | | | A |
| Maximum instantaneous forward voltage at 1.0A | $V_F$ | 0.50 | 0.55 | | 0.70 | | 0.85 | | V |
| Maximum DC reverse current  $T_A$ = 25 ℃ at Rated DC blocking voltage  $T_A$ = 100℃ | $I_R$ | 0.5 5 | | | | | | | mA |
| Thermal resistance from junction to Lead | $R_{\theta JL}$ | 30 | | | | | | | ℃/ W |
| Operating junction and storage temperature range | $T_J$, $T_{STG}$ | – 65 to +125 | | | | | | | ℃ |

**Characteristic Curves** (T<sub>A</sub>=25 ℃ unless otherwise noted)



Fig.1 Forward Current Derating Curve
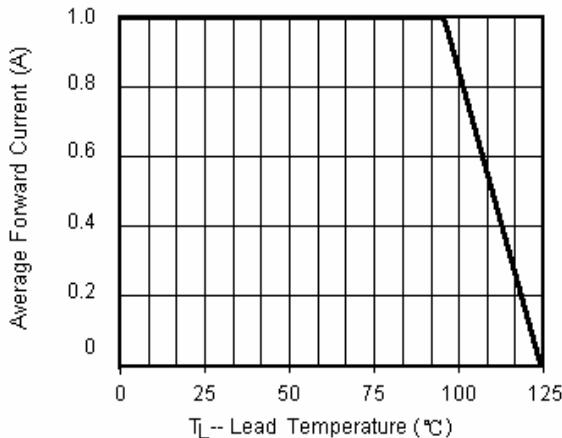


Fig.2 Maximum Non-Repetitive Peak Forward Surge Current
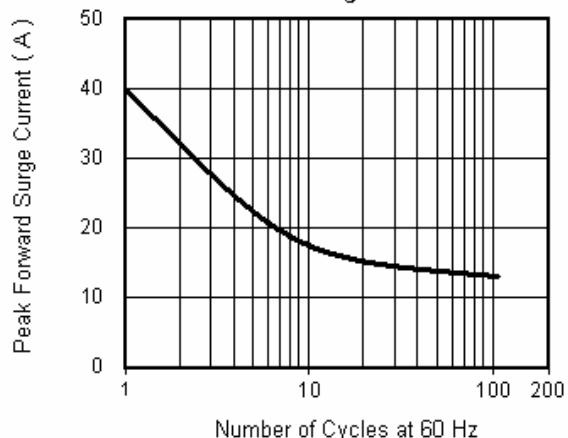


Fig.3 Typical Instantaneous Forward Characteristics
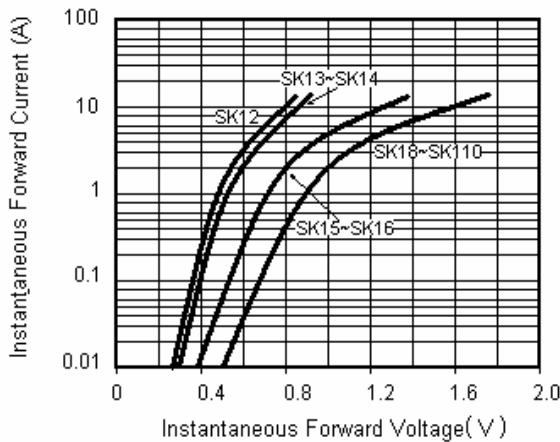


Fig.4 Typical Reverse Leakage Characteristics