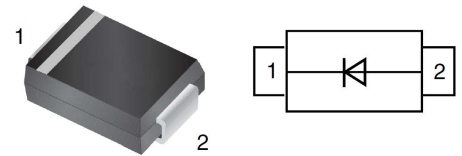


Schottky Barrier Rectifier in DO-214AC/SMA

Features

- Schottky barrier diodes
- Low forward voltage drop
- High Junction Temperature



Mechanical Data

- **Case:** JEDEC DO-214AC(SMA)molded plastic
Lead free; RoHS compliant
- **Molding Compound Flammability Rating:**
UL 94 V-0
- **Terminals:** High temperature soldering guaranteed:
260 °C/10 sec. at terminals

Absolute Maximum Ratings

Ratings at 25 °C, ambient temperature unless otherwise specified

| Parameter | Symbol | SK12 | SK13 | SK14 | SK16 | SK110 | Unit |
|--|----------------|---------------|------|------|------|-------|------|
| Maximum repetitive peak reverse voltage | V_{RRM} | 20 | 30 | 40 | 60 | 100 | V |
| Maximum RMS voltage | V_{RMS} | 14 | 21 | 28 | 42 | 70 | V |
| Maximum DC blocking voltage | V_{DC} | 20 | 30 | 40 | 60 | 100 | V |
| Maximum average forward rectified current | $I_{F(AV)}$ | 1.0 | | | | | A |
| Peak forward surge current 8.3 ms single half sine-wave superimposed on rated load | I_{FSM} | 30 | | | | | A |
| Operating junction and storage temperature range | T_J, T_{STG} | - 55 to + 150 | | | | | °C |

Electrical Characteristics

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

| Parameter | Test Conditions | Symbol | SK12 | SK13 | SK14 | SK16 | SK110 | Unit |
|---|----------------------------|--------|------|------|------|------|-------|------|
| Maximum instantaneous forward voltage | $I_F=3A, T_A=25\text{ °C}$ | V_F | 0.55 | | | 0.70 | 0.85 | V |
| Maximum DC reverse current at rated DC blocking voltage | $T_A=25\text{ °C}$ | I_R | 0.5 | | | | | mA |
| | $T_A=125\text{ °C}$ | | 50 | | | 20 | | |
| Typical junction capacitance | 4.0 V, 1 MHz | C_J | 110 | | | 80 | pF | |

Thermal Characteristics

| Parameter | Symbol | SK12 | SK13 | SK14 | SK16 | SK110 | Unit |
|---|-----------------|------|------|------|------|-------|------|
| Typical thermal resistance ⁽¹⁾ | $R_{\theta JA}$ | 90 | | | | | °C/W |
| | $R_{\theta JC}$ | 60 | | | | | |
| | $R_{\theta JI}$ | 20 | | | | | |

Note1: Thermal resistance from junction to lead, mounted on PCB with 5.0x5.0mm copper pads

Typical Characteristics ($T_{amb} = 25\text{ }^{\circ}\text{C}$ unless otherwise specified)

Figure 1. Forward Current Derating Curve

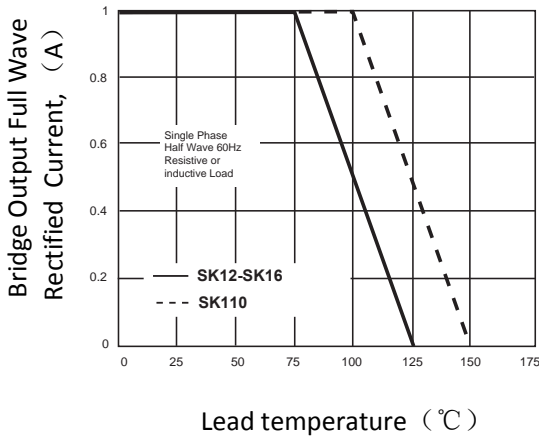


Figure 2. Maximum Non-Repetitive Peak Forward Surge Current

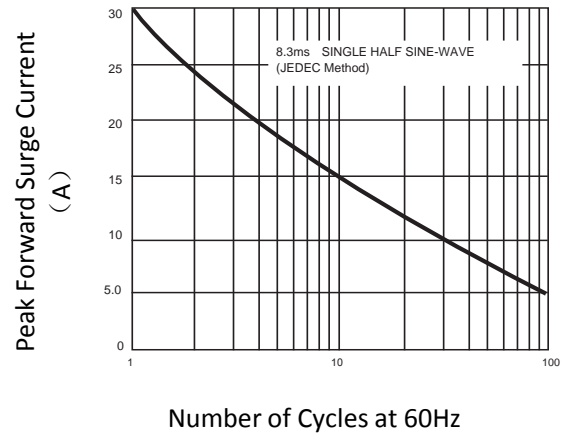


Figure 3. Typical Instantaneous Forward Characteristics

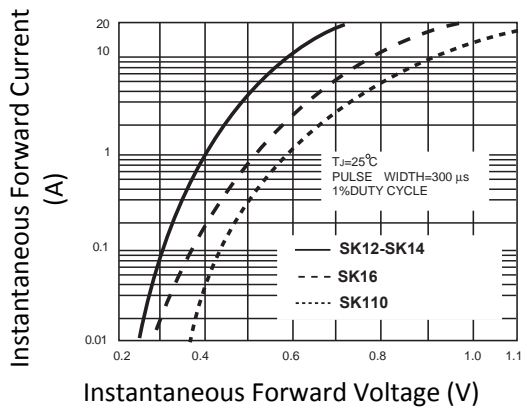


Figure 4. Typical Reverse Characteristics

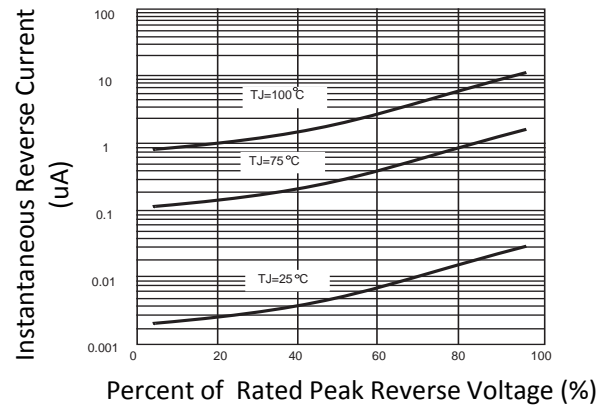
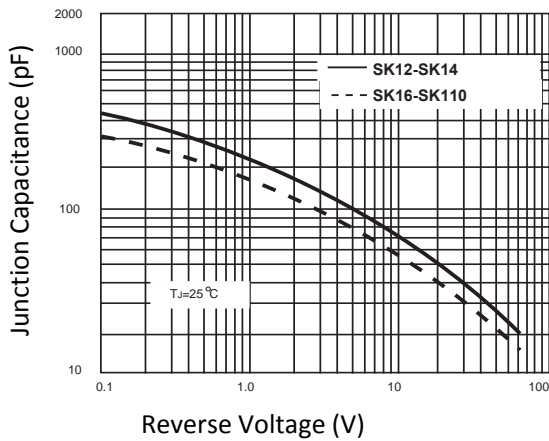
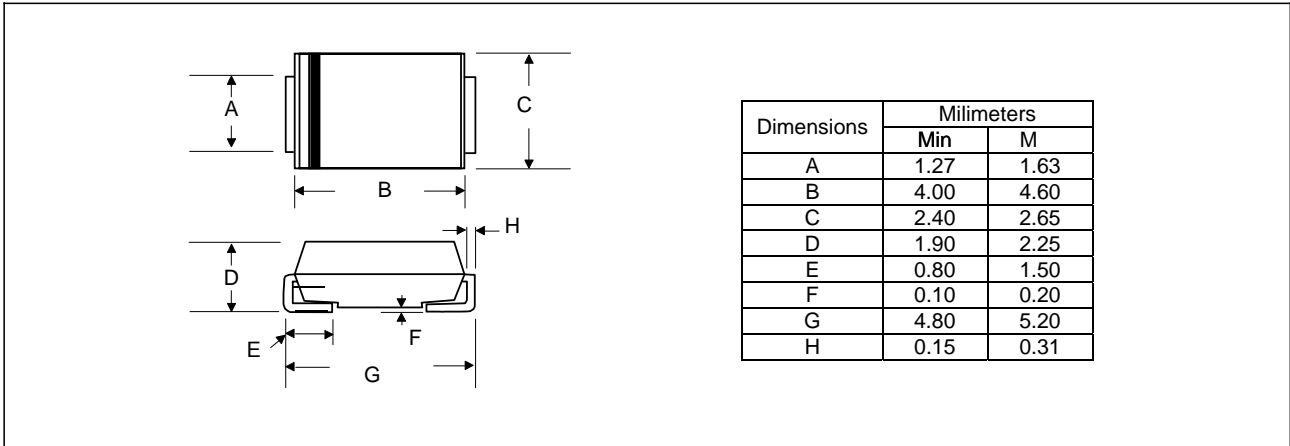


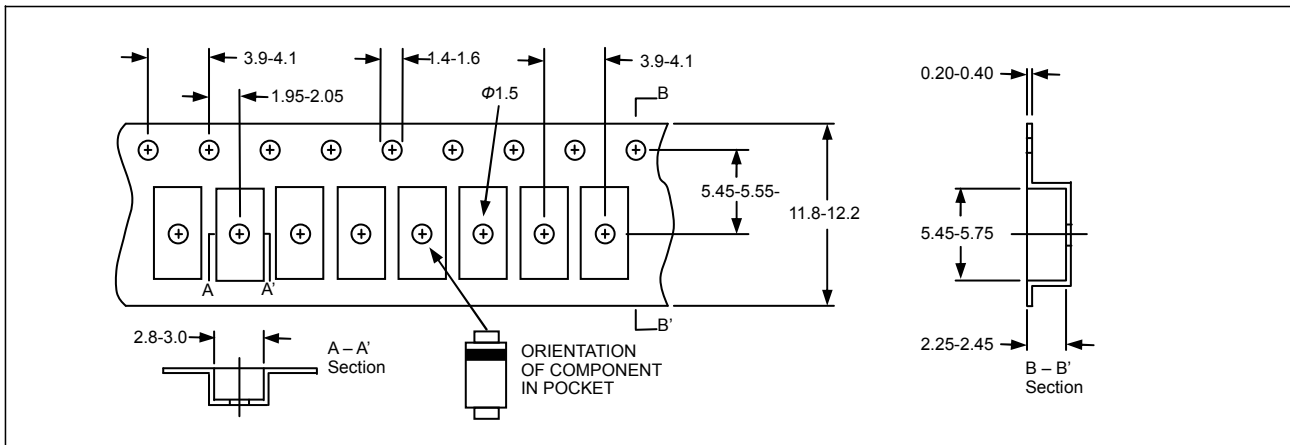
Figure 5. Typical Junction Capacitance



Package Dimensions



Package Information



Ordering information

| Order code | Package | Packaging option | Base quantity | Packaging specification |
|------------------------|---------------------|------------------|-----------------------|-------------------------|
| SK12 Thru SK110 | DO-214AC/SMA | Tape and reel | 5000pcs / reel | EIA STD RS-481 |

Revision history

| Date | Revision | Changes |
|-------------|----------|-----------------|
| 23-May-2020 | 1.0 | Initial release |

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