# SK3C0C
# Schottky Barrier Rectifier

## FEATURES

- Ideal for automated placement
- Low forward voltage drop
- Low leakage current
- Meets environmental standard MIL-S-19500D
- Moisture sensitivity:level 1, per J-STD-020
- Solder dip 275°C, 10s
- Compliant to RoHS Directive 2002/95/EC and in accordance to WEEE 2002/96/EC

DO-214AB（SMC）

RoHS COMPLIANT

## APPLICATIONS

- General purpose rectification
- Lighting
- Power supplies
- Inverters and converters
- Freewheeling diodes for consumer, automotive and telecommunication

## MECHANICAL DATA

**Case:** DO-214AB, molded epoxy body，Epoxy meets UL 94V-0 flammability rating

**Terminals:** Matte tin plated leads, solderable per J-STD-002 and JESD22B-106
**Polarity:** Laser Band Denotes Cathode Band

**MAXIMUM RATINGS** ($T_A$ = 25 °C unless otherwise noted)

| PARAMETER | SYMBOL | SK3C0C | UNIT |
|---|---|---|---|
| Maximum repetitive peak reverse voltage | $V_{RRM}$ | 200 | V |
| Maximum RMS voltage | $V_{RMS}$ | 140 | V |
| Maximum DC blocking voltage | $V_{DC}$ | 200 | V |
| Maximum average forward rectified current at TL (See Fig.1) | $I_{F(AV)}$ | 3 | A |
| Peak forward surge current 8.3 ms single half sine-wave superimposed on rated load | $I_{FSM}$ | 80 | A |
| Operating junction temperature range | $T_J$ | - 55 to + 150 | °C |
| Storage temperature range | Tstg | - 55 to + 150 | °C |

| ELECTRICAL CHARACTERISTICS ($T_A$ = 25 °C unless otherwise noted) | | | | |
|---|---|---|---|---|
| **PARAMETER** | **TEST CONDITIONS** | **SYMBOL** | **SK3C0C** | UNIT |
| Maximum instantaneous forward voltage | $I_F$=0.5A<br>$I_F$=1A<br>$I_F$=2A<br>$I_F$=3A | $V_F$ | 0.70<br>0.75<br>0.80<br>0.85 | V |
| Maximum DC reverse current at rated DC blocking voltage | $T_A$=25°C | $I_R$ | 100 | uA |
| | $T_A$=125°C | | 500 | |
| Typical junction capacitance | 4.0 V, 1 MHz | $C_J$ | 68 | pF |

| THERMAL CHARACTERISTICS ($T_A$ = 25 °C unless otherwise noted) | | | |
|---|---|---|---|
| **PARAMETER** | **SYMBOL** | **SK3C0C** | **UNIT** |
| Typical thermal resistance | $R_{\theta JA}$ (1) | 80 | °C/W |
| | $R_{\theta JT}$ (2) | 20 | |

Notes: (1) Thermal resistance from junction to ambient,0.315×0.315″ (8.0×8.0mm) copper pads to each terminal
(2) Thermal resistance from junction to terminal, 0.315×0.315″ (8.0×8.0mm) copper pads to each terminal

## RATINGS AND CHARACTERISTICS CURVES

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

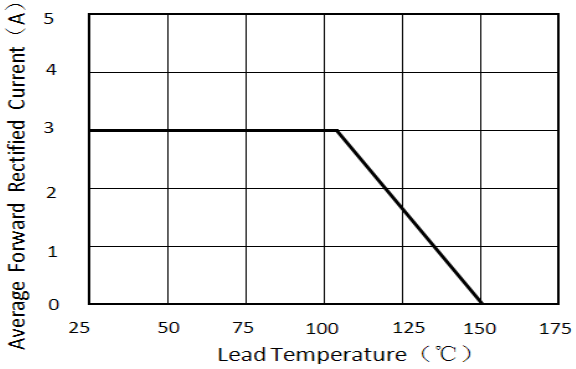


Figure 1. Forward Current Derating Curve

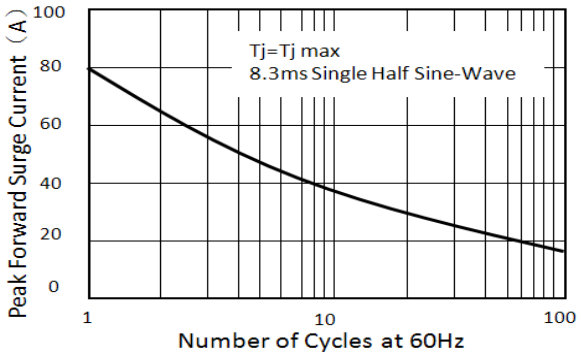


Figure 2.Maximum Non-repetitive Peak Forward Surge Current

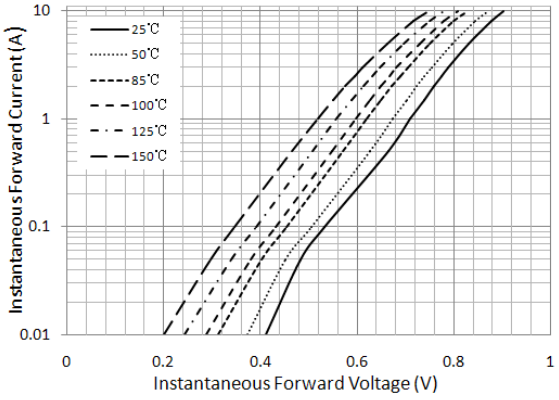


Figure 3. Typical Instantaneous Forward Characteristics

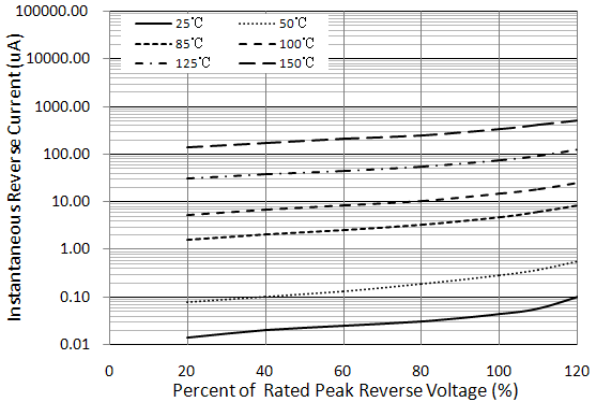


Figure 4. Typical Reverse Characteristics

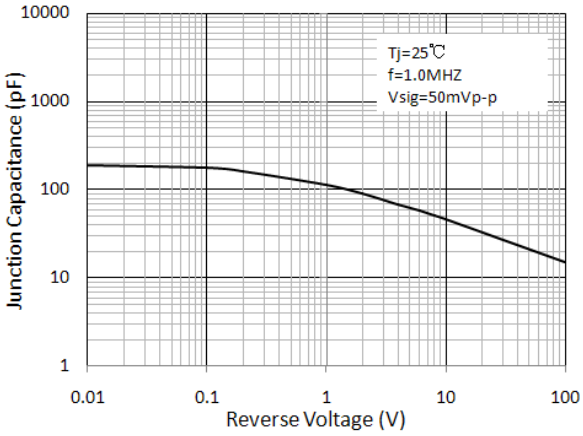


**Figure 5. Typical Junction Capacitance**

**PACKAGE OUTLINE DIMENSIONS** in inches (millimeters)