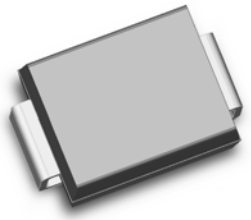
GOOD-ARK

# SK3C0B

## Surface Mount Schottky Barrier Rectifier



DO-214AA（SMB）

### 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, 10 s
- Compliant to RoHS Directive 2002/95/EC and in accordance to WEEE 2002/96/EC

### TYPICAL APPLICATIONS

For use in general purpose rectification of lighting, power supplies, inverters, converters and freewheeling diodes for consumer, automotive and telecommunication.

| PRIMARY CHARACTERISTICS | |
|---|---|
| $I_{F(AV)}$ | 3 A |
| $V_{RRM}$ | 200 V |
| $I_{FSM}$ | 80A |
| $V_F$ | 0.85V |
| $T_J$ max. | 150 °C |

### MECHANICAL DATA

**Case:** DO-214AA, 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** | **SK3C0B** | **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 |

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| ELECTRICAL CHARACTERISTICS ($T_A$ = 25 °C unless otherwise noted) | | | | |
|---|---|---|---|---|
| **PARAMETER** | **TEST CONDITIONS** | **SYMBOL** | **SK3C0B** | UNIT |
| Maximum instantaneous forward voltage | IF=0.5A<br>IF=1 A<br>IF=2 A<br>IF=3A | $V_F$ | 0.7<br>0.75<br>0.8<br>0.85 | V |
| Maximum DC reverse current at rated DC blocking voltage | TA=25°C | $I_R$ | 100 | uA |
| | TA=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** | **SK3C0B** | **UNIT** |
| Typical thermal resistance | $R_{\theta JA}$ (1) | 90 | °C/W |
| | $R_{\theta JT}$ (2) | 30 | |

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

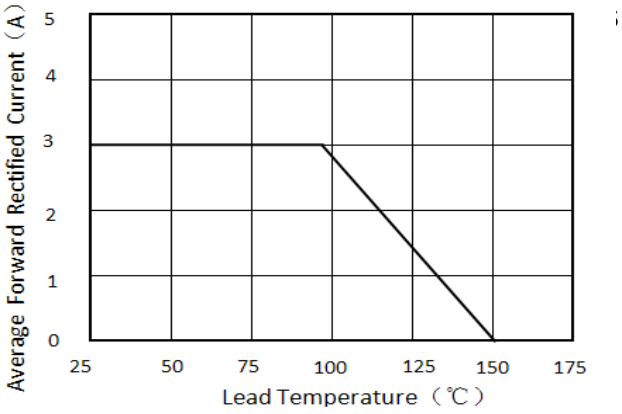


**Figure 1. Forward Current Derating Curve**

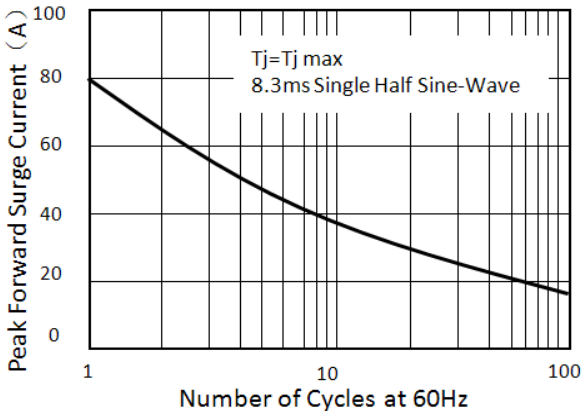


**Figure 2.Maximum Non-repetitive Peak Forward Surge Current**

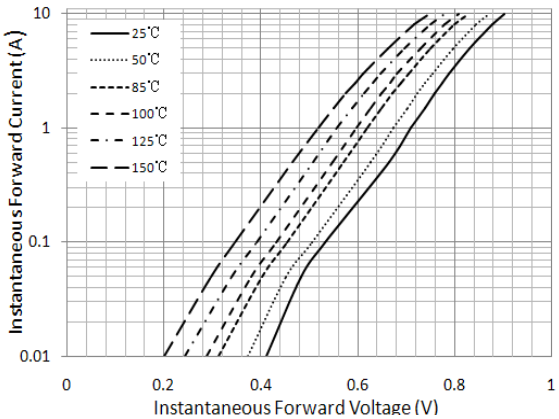


**Figure 3. Typical Instantaneous Forward Characteristics**

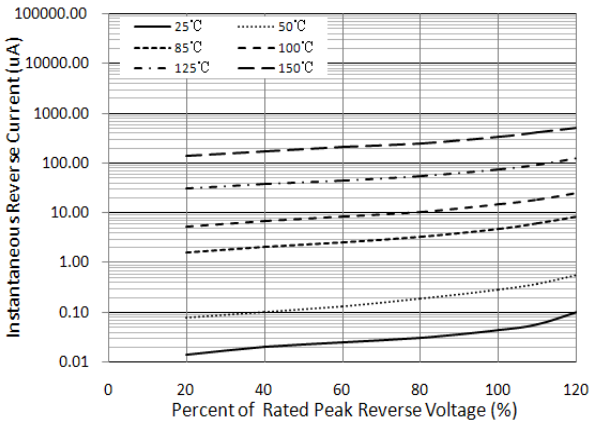


**Figure 4. Typical Reverse Characteristics**

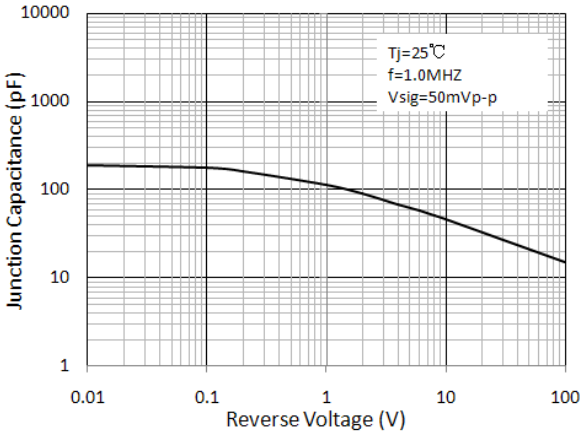


**Figure 5. Typical Junction Capacitance**

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