

Pb Free Plating Product

SK1045 thru SK10100



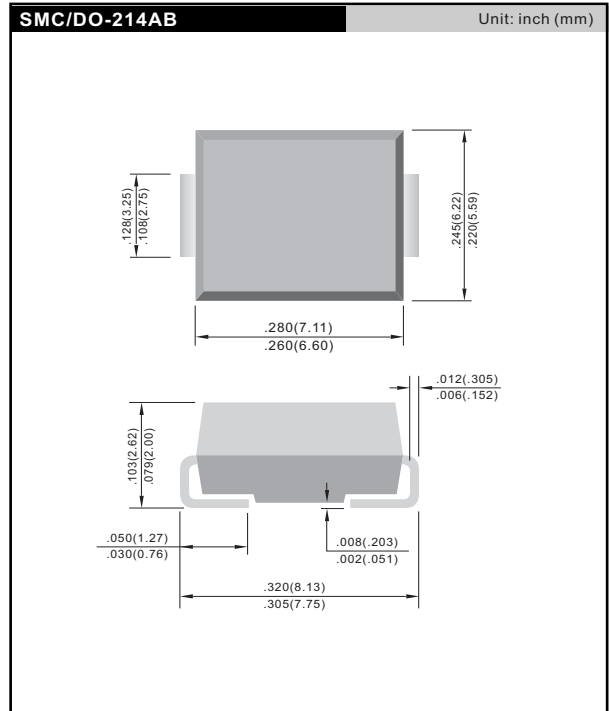
10 Ampere Surface Mount Type Schottky Barrier Rectifier Diodes

Features

- ◇ For surface mounted application
- ◇ Metal to silicon rectifier, majority carrier conduction
- ◇ Low forward voltage drop
- ◇ Easy pick and place
- ◇ High surge current capability
- ◇ Plastic material used carriers Underwriters Laboratory Classification 94V-0
- ◇ Epitaxial construction
- ◇ High temperature soldering: 260°C / 10 seconds at terminals

Mechanical Data

- ◇ Case: Molded plastic
- ◇ Terminals: Pure tin plated, lead free.
- ◇ Polarity: Indicated by cathode band
- ◇ Packaging: 16mm tape per EIA STD RS-481
- ◇ Weight: 0.235 gram approximately



Maximum Ratings and Electrical Characteristics

Rating at 25°C ambient temperature unless otherwise specified.

Single phase, half wave, 60 Hz, resistive or inductive load.

For capacitive load, derate current by 20%

| PARAMETER | SYMBOL | SK1045 | SK1065 | SK10100 | UNIT |
|--|-----------------|-------------|--------|---------|------|
| Maximum repetitive peak reverse voltage | V_{RRM} | 45 | 65 | 100 | V |
| Maximum RMS voltage | V_{RMS} | 32 | 46 | 70 | V |
| Maximum DC blocking voltage | V_{DC} | 45 | 65 | 100 | V |
| Maximum average forward rectified current | I_F | 10.0 | | | A |
| Peak forward surge current, 8.3ms single half sine-wave superimposed on rated load | I_{FSM} | 150.0 | | | A |
| Maximum instantaneous $I_F=10A$ @ 25°C | V_F | 0.55 | 0.70 | 0.85 | V |
| Maximum DC reverse current @ TA=25°C at rated DC blocking voltage @ TA=100°C | I_R | 0.5 | | 0.2 | mA |
| | | 25.0 | | 15.0 | |
| Typical junction capacitance(NOTE1) | C_J | 380 | | | pF |
| Typical thermal resistance | $R_{\theta JC}$ | 75 | | | °CW |
| Operating temperature range | T_J | -50 to +125 | | | °C |
| Storage temperature range | T_{STG} | -65 to +150 | | | °C |

NOTES: 1. Measured at 1.0MHZ and applied reverse voltage of 4.0V DC

RATINGS AND CHARACTERISTIC CURVES (SK1045 THRU SK10100)

FIG. 1-TYPICAL FORWARD CURRENT DERATING CURVE

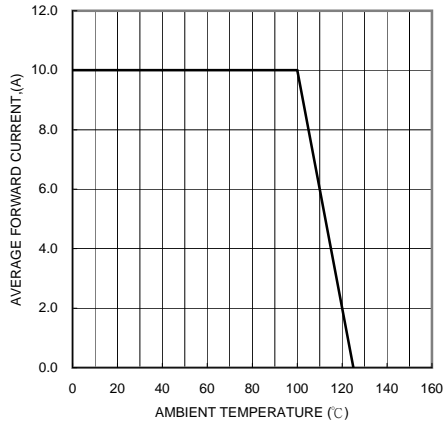


FIG. 2-TYPICAL FORWARD CHARACTERISTICS

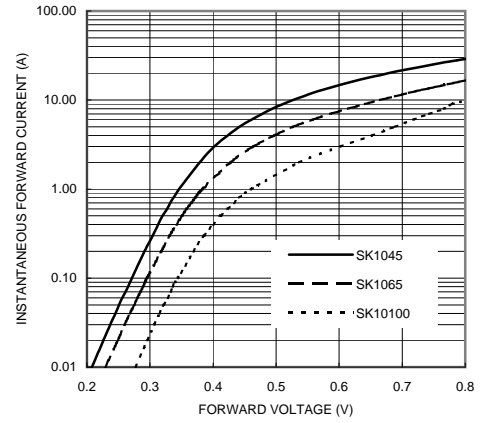


FIG. 3-MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

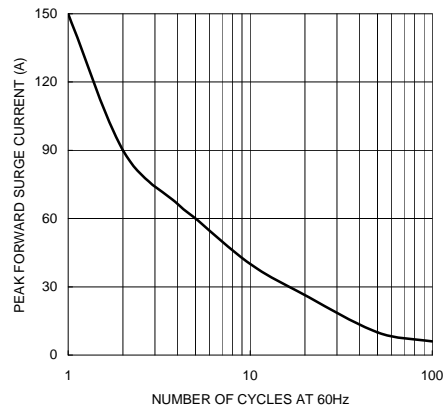


FIG. 4-TYPICAL REVERSE CHARACTERISTICS

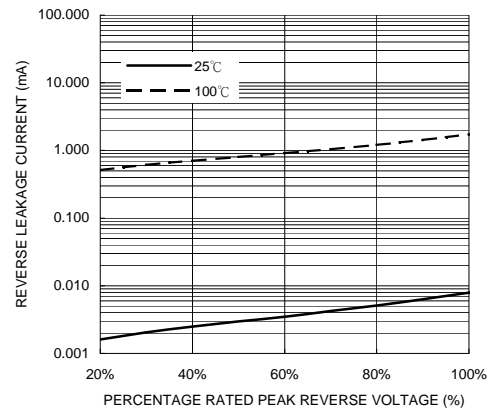


FIG. 5-TYPICAL JUNCTION CAPACITANCE

