



SK32C THRU SK315C

SURFACE MOUNT SCHOTTKY BARRIER RECTIFIER

REVERSE VOLTAGE: 20 to 150 VOLTS
FORWARD CURRENT: 3.0 AMPERE

FEATURES

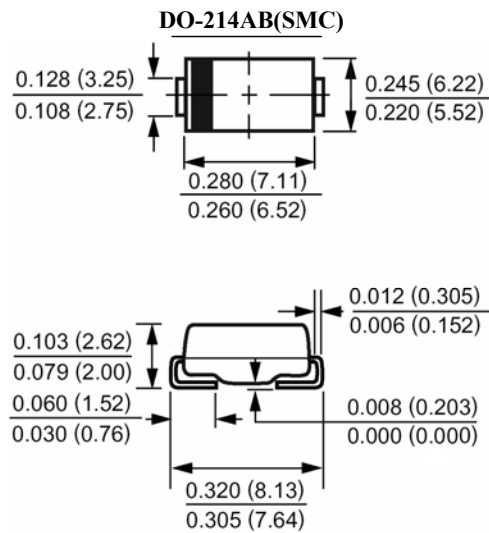
- Plastic package has Underwriters Laboratory Flammability Classification 94V-O
- For surface mounted applications
- High current capacity
- Built-in strain relief
- Low profile package
- Metal to silicon rectifier, majority carrier conduction
- High surge capacity
- Low power loss, high efficiency
- Suffix " H " indicated Halogen-free part, ex.SK32CH

MECHANICAL DATA

Case : Molded plastic, DO-214AB(SMC)

Terminals : Solder plated, solderable per MIL-STD-750, method 2026 guaranteed

Polarity : Color band denotes cathode end



Dimensions in inches and (millimeters)

Maximum Ratings and Electrical Characteristics

Ratings at 25°C ambient temperature unless otherwise specified.

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

For capacitive load, derate current by 20%.

| Parameter | Symbols | SK32C | SK33C | SK34C | SK35C | SK36C | SK38C | SK39C | SK310C | SK315C | Units |
|--|-----------------|-------------|-------|-------|-------|-------------|-------|-------|--------|--------|-------|
| Maximum Recerrent Peak Reverse Voltage | V_{RRM} | 20 | 30 | 40 | 50 | 60 | 80 | 90 | 100 | 150 | Volts |
| Maximum RMS Voltage | V_{RMS} | 14 | 21 | 28 | 35 | 42 | 56 | 64 | 71 | 105 | Volts |
| Maximum DC Blocking Voltage | V_{DC} | 20 | 30 | 40 | 50 | 60 | 80 | 90 | 100 | 150 | Volts |
| Maximum Average Forward Rectified Current at T_L (See Fig. 1) | $I_{(AV)}$ | 3.0 | | | | | | | | | Amp |
| Peak Forward Surge Current, 8.3ms single half-sine-wave superimposed on rated load (JEDEC method) | I_{FSM} | 80.0 | | | | | | | | | Amp |
| Maximum Forward Voltage at 3.0A (Note 1) | V_F | 0.55 | | | 0.75 | | 0.85 | | 0.95 | | Volts |
| Maximum Reverse Current at $T_A=25^\circ\text{C}$ at Rated DC Blocking Voltage $T_A=100^\circ\text{C}$ | I_R | 0.5 | | | | | | | | | mAmp |
| Typical Thermal Resistance (Note 2) | $R_{\theta JA}$ | 55.0 | | | | | | | | | °C/W |
| | $R_{\theta JL}$ | 17.0 | | | | | | | | | |
| Operating Junction Temperature Range | T_J | -55 to +125 | | | | -55 to +150 | | | | | °C |
| Storage Temperature Range | T_{stg} | -55 to +150 | | | | | | | | | °C |

NOTES:

1- Pulse test: 300µs pulse width, 1% duty cycle

2- P.C.B. mounted with 0.55 x 0.55" (14 x 14mm) Copper Pad Areas



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RATINGS AND CHARACTERISTIC CURVES

FIG.1-TYPICAL FORWARD CURRENT DERATING CURVE

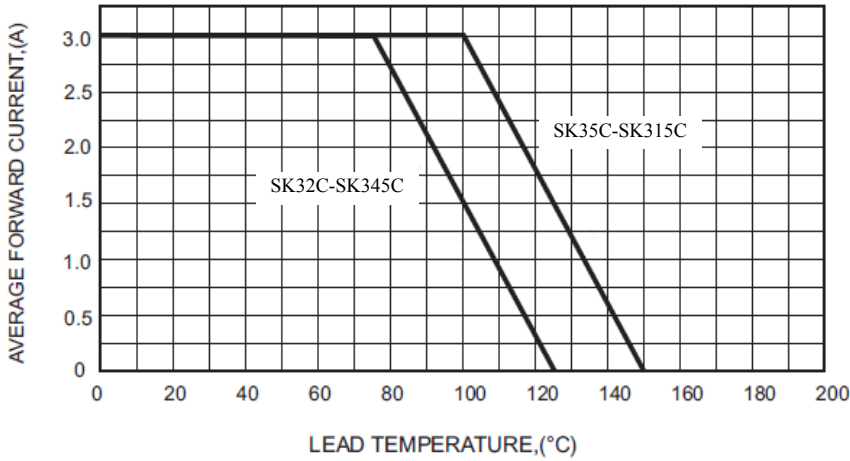


FIG.3-MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

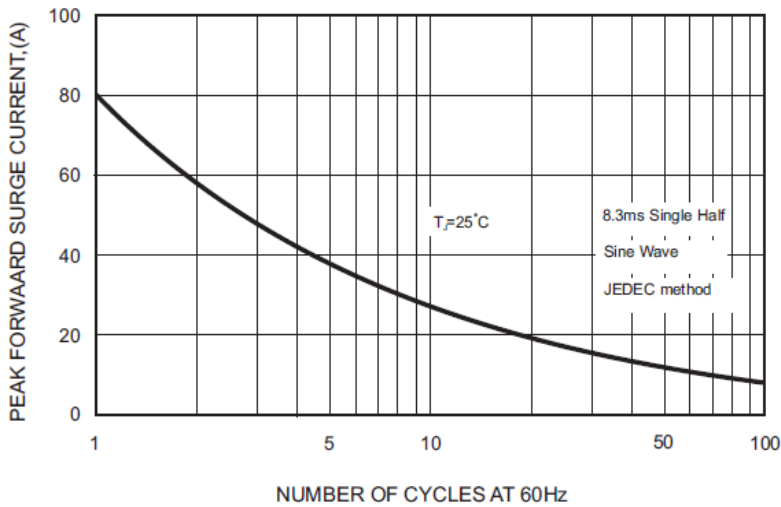


FIG.4-TYPICAL JUNCTION CAPACITANCE

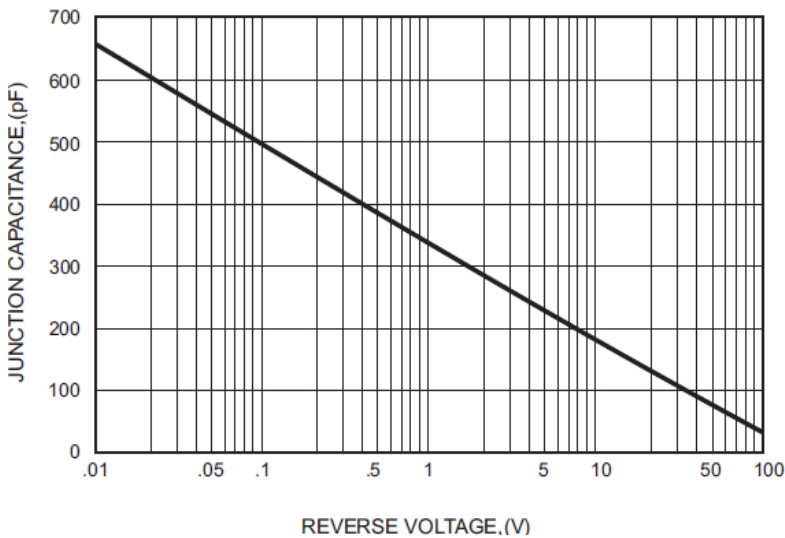


FIG.2-TYPICAL FORWARD CHARACTERISTICS

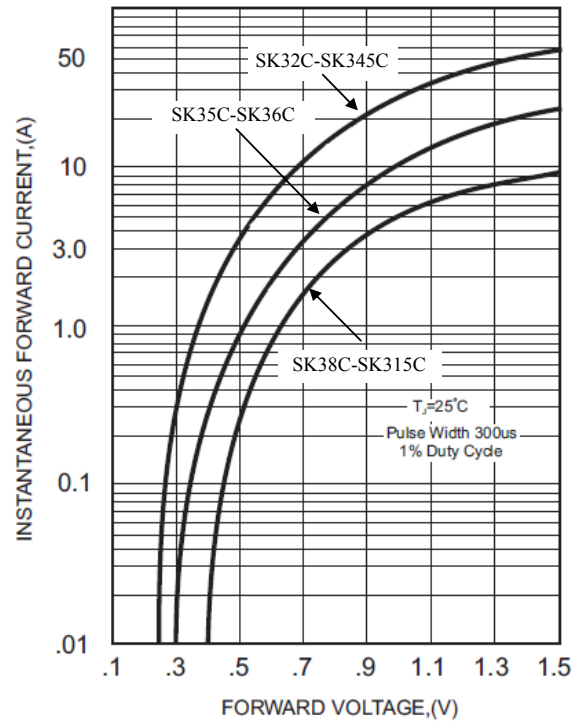


FIG.5 - TYPICAL REVERSE CHARACTERISTICS

