

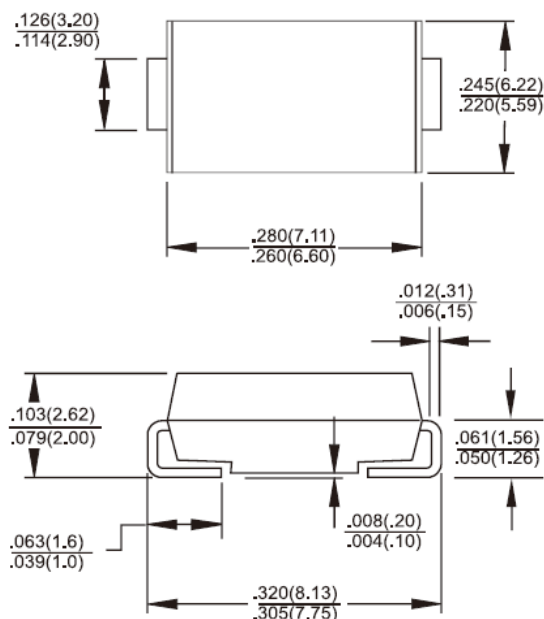


**RoHS**  
COMPLIANCE



### 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
- ✧ Green compound with suffix "G" on packing code & prefix "G" on datecode



### Mechanical Data

- ✧ Case: Molded plastic
- ✧ Terminals: Solder plated
- ✧ Polarity: Indicated by cathode band
- ✧ Packaging: 16mm tape per EIA STD RS-481
- ✧ Weight: 0.21 grams

### Dimensions in inches and (millimeters)

#### Marking Diagram



- SK8XC = Specific Device Code  
G = Green Compound  
Y = Year  
M = Work Month

### 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%

| Type Number                                                                                                 | Symbol             | SK 82C       | SK 83C | SK 84C | SK 85C      | SK 86C | Units |
|-------------------------------------------------------------------------------------------------------------|--------------------|--------------|--------|--------|-------------|--------|-------|
| Maximum Recurrent Peak Reverse Voltage                                                                      | V <sub>RRM</sub>   | 20           | 30     | 40     | 50          | 60     | V     |
| Maximum RMS Voltage                                                                                         | V <sub>RMS</sub>   | 20           | 30     | 40     | 50          | 60     | V     |
| Maximum DC Blocking Voltage                                                                                 | V <sub>DC</sub>    | 14           | 21     | 28     | 35          | 42     | V     |
| Maximum Average Forward Rectified Current                                                                   | I <sub>F(AV)</sub> | 8            |        |        |             |        | A     |
| Peak Forward Surge Current, 8.3 ms Single Half Sine-wave Superimposed on Rated Load (JEDEC method)          | I <sub>FSM</sub>   | 150          |        |        |             |        | A     |
| Maximum Instantaneous Forward Voltage (Note 1) @ 8 A                                                        | V <sub>F</sub>     | 0.55         |        |        | 0.75        |        | V     |
| Maximum DC Reverse Current @ T <sub>A</sub> =25 °C<br>at Rated DC Blocking Voltage @ T <sub>A</sub> =100 °C | I <sub>R</sub>     | 0.5          |        |        |             |        | mA    |
|                                                                                                             |                    | 15           |        |        | 10          |        | mA    |
| Typical Thermal Resistance                                                                                  | R <sub>θJA</sub>   | 20           |        |        |             |        | °C/W  |
| Operating Temperature Range                                                                                 | T <sub>J</sub>     | -55 to +125  |        |        | -55 to +150 |        | °C    |
| Storage Temperature Range                                                                                   | T <sub>STG</sub>   | - 55 to +150 |        |        |             |        | °C    |

Note 1: Pulse Test with PW=300 usec, 1% Duty Cycle

## RATINGS AND CHARACTERISTIC CURVES (SK82C THRU SK86C)

FIG. 1- MAXIMUM FORWARD CURRENT DERATING CURVE

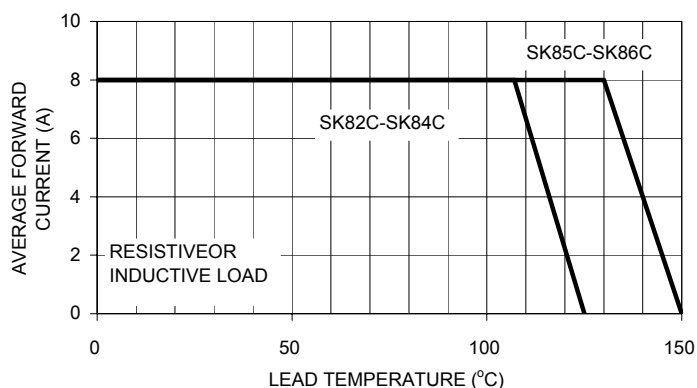


FIG. 2- MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

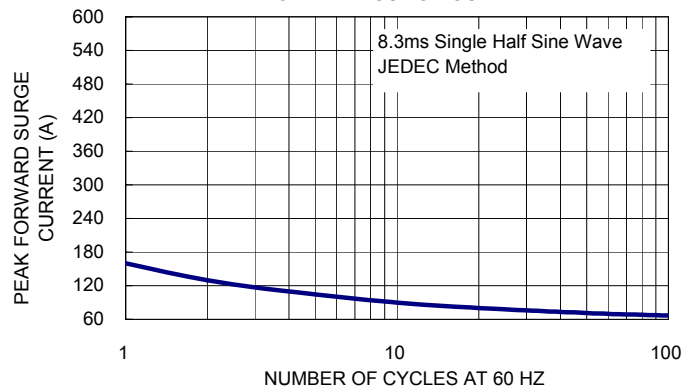


FIG. 3- TYPICAL FORWARD CHARACTERISTICS

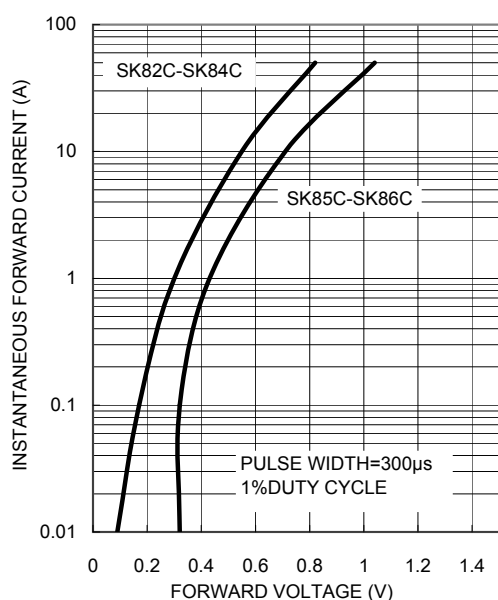


FIG. 4- TYPICAL REVERSE CHARACTERISTICS

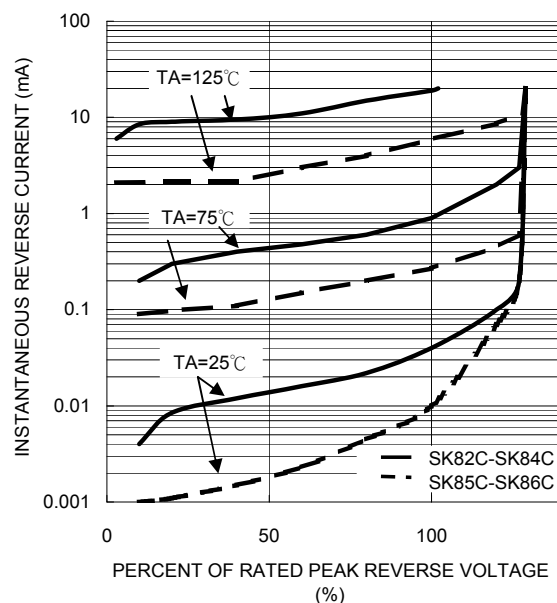


FIG. 5- TYPICAL JUNCTION CAPACITANCE

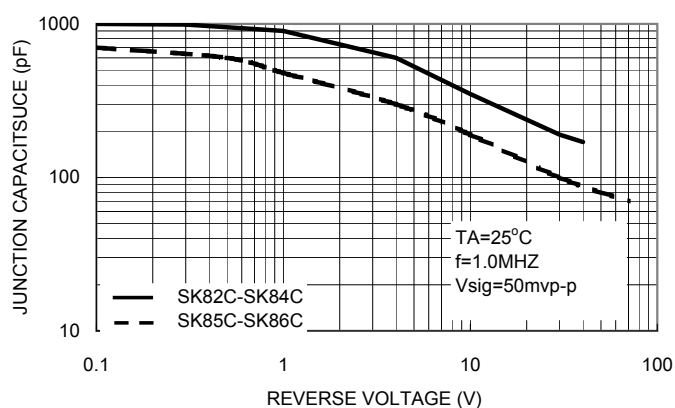


FIG. 6- TYPICAL TRANSIENT THERMAL CHARACTERISTICS

