

- High surge current capability
- Moisture sensitivity level: level 1, per J-STD-020
- Compliant to RoHS Directive 2011/65/EU and in accordance to WEEE 2002/96/EC
- Halogen-free according to IEC 61249-2-21 definition
- Available: Commercial or AEC-Q101-qualified



MECHANICAL DATA

Case: DO-214AC (SMA)

Molding compound, UL flammability classification rating 94V-0

Base P/N with suffix "H" on P/N - Automotive grade

Base P/N with suffix "G" on packing code - green compound (halogen-free)

Terminal: Matte tin plated leads, solderable per JESD22-B102

Meet JESD 201 class 1A whisker test

with suffix "H" on P/N meet JESD 201 class 2 whisker test

Polarity: Indicated by cathode band

Weight: 0.07 g (approximately)

DO-214AC (SMA)

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS ($T_A=25^{\circ}\text{C}$ unless otherwise noted)

| PARAMETER | SYMBOL | SK 32A | SK 33A | SK 34A | SK 35A | SK 36A | SK 39A | SK 310A |
|--|-----------------|--------------|--------|--------|--------|--------|--------|---------|
| Maximum repetitive peak reverse voltage | V_{RRM} | 20 | 30 | 40 | 50 | 60 | 90 | 100 |
| Maximum RMS voltage | V_{RMS} | 14 | 21 | 28 | 35 | 42 | 63 | 70 |
| Maximum DC blocking voltage | V_{DC} | 20 | 30 | 40 | 50 | 60 | 90 | 100 |
| Maximum average forward rectified current | $I_{F(AV)}$ | 3 | | | | | | |
| Peak forward surge current, 8.3 ms single half sine-wave superimposed on rated load | I_{FSM} | 70 | | | | | | |
| Maximum instantaneous forward voltage (Note 1) @ 3 A | V_F | 0.55 | | 0.72 | | 0.85 | | |
| Maximum reverse current @ rated VR $T_J=25^{\circ}\text{C}$ $T_J=100^{\circ}\text{C}$ $T_J=125^{\circ}\text{C}$ | I_R | 0.5 | | 0.2 | | 0 | | |
| | | 10 | | 5 | | - | | |
| | | - | | 10 | | 0 | | |
| Voltage Rate of Change (Rated V_R) | dV/dt | 10000 | | | | | | |
| Typical thermal resistance | $R_{\theta JL}$ | 25 | | | | | | |
| | $R_{\theta JA}$ | 66 | | | | | | |
| Operating junction temperature range | T_J | - 55 to +150 | | | | | | |
| Storage temperature range | T_{STG} | - 55 to +150 | | | | | | |

Note 1: Pulse test with $PW=300\mu\text{s}$, 1% duty cycle

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| | | | |
|--------------------|-----|----|---|
| SK3xxA (Note 1) | H | F3 | G |
| | | F2 | |
| | | F4 | |
| | N/A | E3 | |
| | | E2 | |

| | |
|------------|-----------|
| Folded SMA | 1,800 / 7 |
| Folded SMA | 7,500 / 1 |
| Folded SMA | 7,500 / 1 |
| Clip SMA | 1,800 / 7 |
| Clip SMA | 7,500 / 1 |

Note 1: "xx" defines voltage from 20V (SK32A) to 200V (SK320A)

EXAMPLE

| PREFERRED P/N | PART NO. | PART NO. SUFFIX | PACKING CODE | PACKING CODE SUFFIX | D |
|---------------|----------|-----------------|--------------|---------------------|----|
| SK36A R3 | SK36A | | R3 | | |
| SK36A R3G | SK36A | | R3 | G | GR |
| SK36AHR3 | SK36A | H | R3 | | AU |

RATINGS AND CHARACTERISTICS CURVES

(T_A=25°C unless otherwise noted)

FIG. 1 FORWARD CURRENT DERATING CURVE

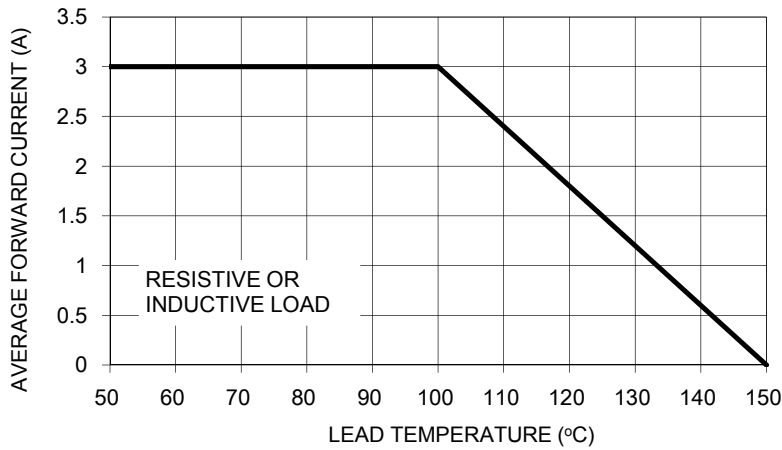


FIG. 2 MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

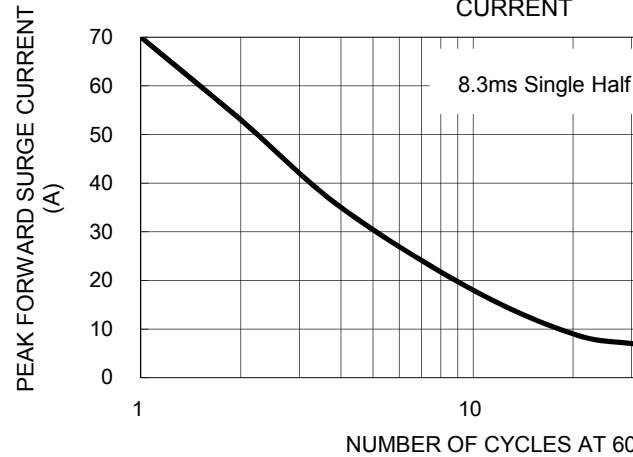


FIG. 3 TYPICAL FORWARD CHARACTERISTICS

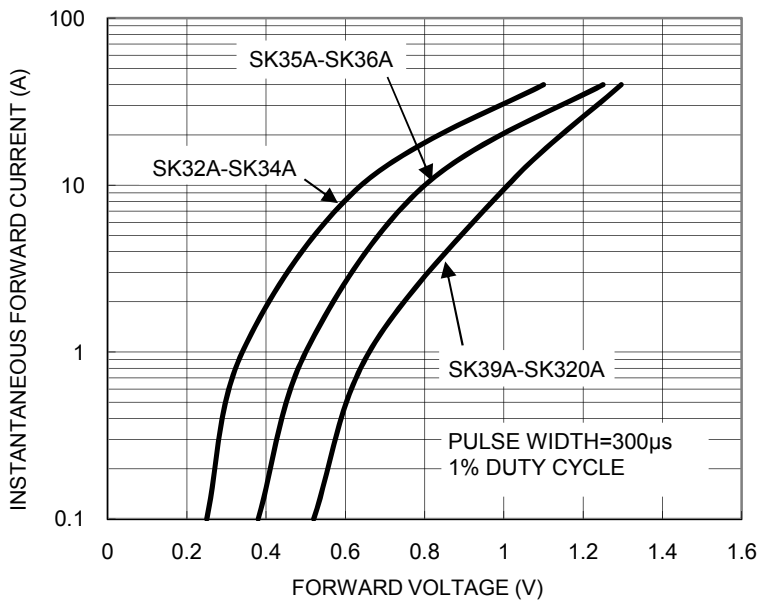
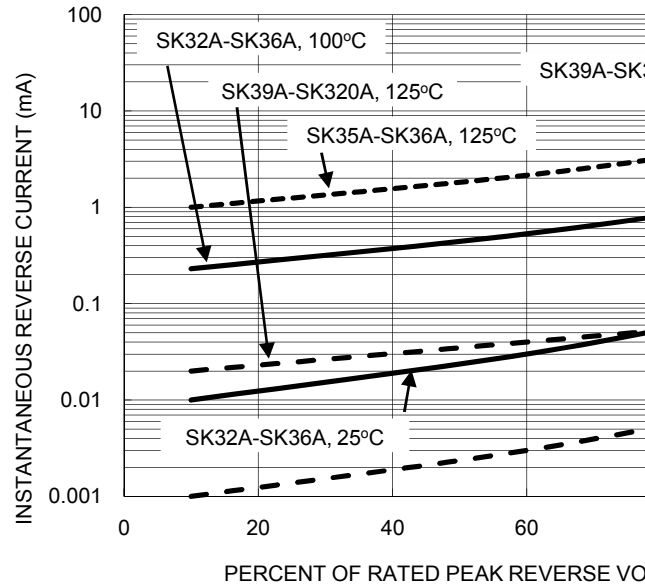
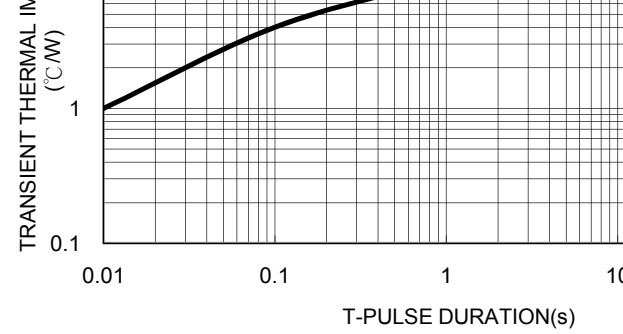
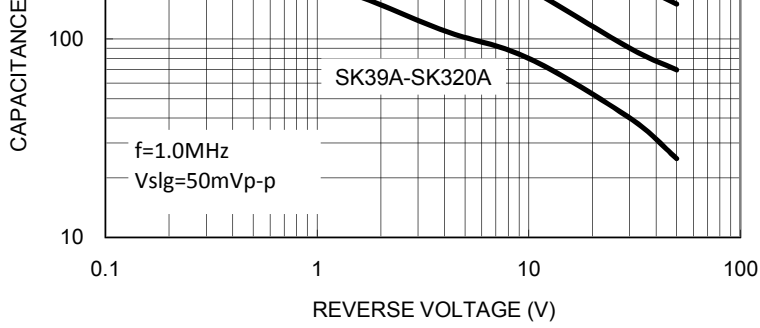


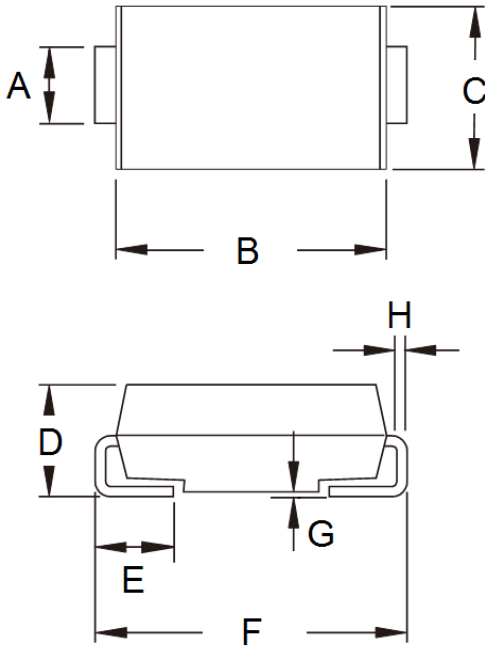
FIG. 4 TYPICAL REVERSE CHARACTERISTICS





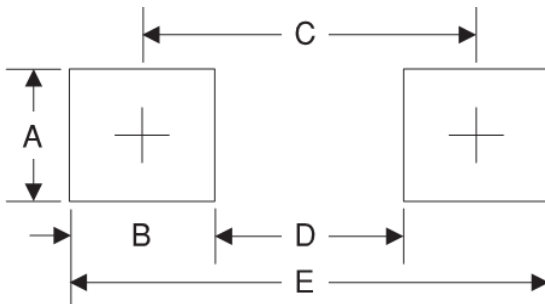
PACKAGE OUTLINE DIMENSIONS

DO-214AC (SMA)



| DIM. | Unit (mm) | | Unit (inch) | |
|------|-----------|------|-------------|-------|
| | Min | Max | Min | Max |
| A | 1.27 | 1.58 | 0.050 | 0.062 |
| B | 4.06 | 4.60 | 0.160 | 0.181 |
| C | 2.29 | 2.83 | 0.090 | 0.111 |
| D | 1.99 | 2.50 | 0.078 | 0.098 |
| E | 0.90 | 1.41 | 0.035 | 0.056 |
| F | 4.95 | 5.33 | 0.195 | 0.210 |
| G | 0.10 | 0.20 | 0.004 | 0.008 |
| H | 0.15 | 0.31 | 0.006 | 0.012 |

SUGGESTED PAD LAYOUT



| Symbol | Unit (mm) | Unit (inch) |
|--------|-----------|-------------|
| A | 1.68 | 0.066 |
| B | 1.52 | 0.060 |
| C | 3.93 | 0.155 |
| D | 2.41 | 0.095 |
| E | 5.45 | 0.215 |

MARKING DIAGRAM



P/N = Specific Device Code
 G = Green Compound
 YW = Date Code
 F = Factory Code

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