

■ FEATURES

- Guardring for overvoltage protection
- Low power losses
- Extremely fast switching
- High forward surge capability
- High frequency operation
- Solder dip 2 60 °Cmax. 10s, per JESD 22-B106

■ TYPICAL APPLICATIONS

For use in low voltage high frequency inverters, freewheeling, DC/DC converters, and polarity protection applications.

■ MECHANICAL DATA

- **Package:** DO-214AB(SMC)
Molding compound meets UL 94 V-0 flammability rating, RoHS-compliant
- **Terminals:** Tin plated leads, solderable per J-STD-002 and JESD22-B102
- **Polarity:** Color band denotes the cathode end

■ MAXIMUM RATINGS (T_a=25°C Unless otherwise specified)

| PARAMETER | SYMBOL | UNIT | SS32 | SS34 | SS36 | SS310 | SS315 | SS320 |
|---|------------------|------|-----------|------|------|-----------|-------|-------|
| Device marking code | | | SS32 | SS34 | SS36 | SS310 | SS315 | SS320 |
| Repetitive Peak Reverse Voltage | V _{RRM} | V | 20 | 40 | 60 | 100 | 150 | 200 |
| Average Rectified Output Current @60Hz sine wave, Resistance load, T _a (FIG.1) | I _o | A | 3.0 | | | | | |
| Forward Surge Current (Non-repetitive) @60Hz Half-sine wave, 1 cycle, T _a =25°C | I _{FSM} | A | 70 | | | | | |
| Storage Temperature | T _{stg} | °C | -55 ~+150 | | | | | |
| Junction Temperature | T _j | °C | -55~+125 | | | -55 ~+150 | | |

■ ELECTRICAL CHARACTERISTICS (T_a=25°C Unless otherwise specified)

| PARAMETER | SYMBOL | UNIT | TEST CONDITIONS | SS32 | SS34 | SS36 | SS310 | SS315 | SS320 |
|---|----------------|------|--|------|------|------|-------|-------|-------|
| Maximum instantaneous forward voltage drop per diode | V _F | V | I _{FM} =3.0A | 0.50 | 0.70 | 0.85 | 0.90 | | |
| Maximum DC reverse current at rated DC blocking voltage per diode | I _R | mA | T _a =25 °C | 0.2 | | | 0.1 | | |
| | | | T _a =100°C | 20 | | | 5.0 | | |
| Typical junction capacitance | C _j | pF | Measured at 1MHZ and Applied Reverse Voltage of 4.0 V.D.C. | 180 | 150 | 130 | 80 | | |

■ THERMAL CHARACTERISTICS (T_a=25°C Unless otherwise specified)

| PARAMETER | SYMBOL | UNIT | SS32 | SS33 | SS34 | SS35 | SS36 | SS38 | SS310 | SS315 | SS320 |
|--------------------|---------------------|------------------|-------------------|------|------|------|------|------|-------|-------|-------|
| Thermal Resistance | Junction to ambient | R _{θJA} | 48 ⁽¹⁾ | | | | | | | | |
| | Junction to lead | R _{θJL} | 13 ⁽¹⁾ | | | | | | | | |

Note(1) Thermal resistance from junction to ambient and from junction to lead mounted on P.C.B. with 0.6" x 0.6" (16 mm x 16 mm) copper pad areas

■ **PACKAGING INFORMATION**

| PREFERRED P/N | PACKAGE CODE | UNIT WEIGHT(g) | MINIMUM PACKAGE(pcs) | INNER BOX QUANTITY(pcs) | OUTER CARTON QUANTITY(pcs) | DELIVERY MODE |
|---------------|--------------|-------------------|----------------------|-------------------------|----------------------------|---------------|
| SS32-SS320 | F1 | Approximate 0.248 | 3000 | 6000 | 42000 | 13"reel |

■ **CHARACTERISTICS (TYPICAL)**

FIG.1: I_o - T_a Curve

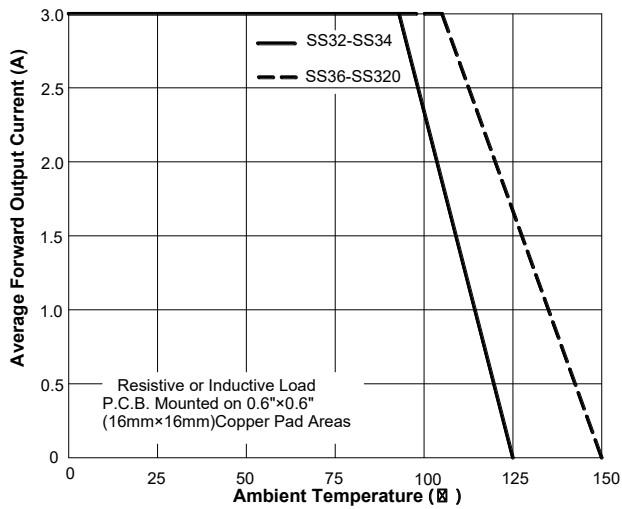


FIG.2: Forward Surge Current Capability

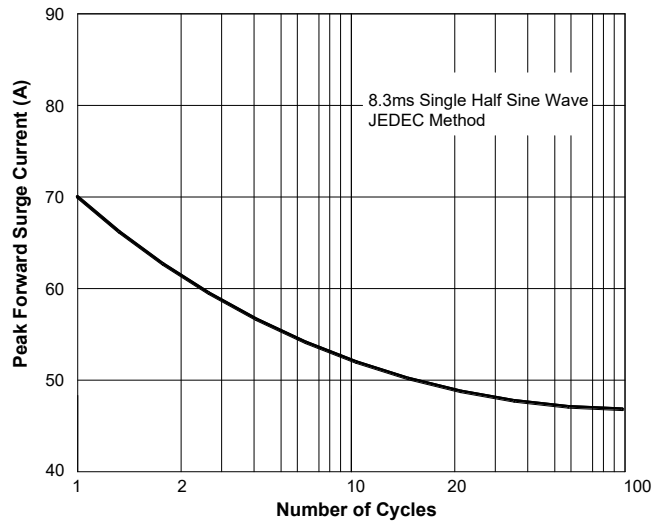


FIG.3: Forward Voltage

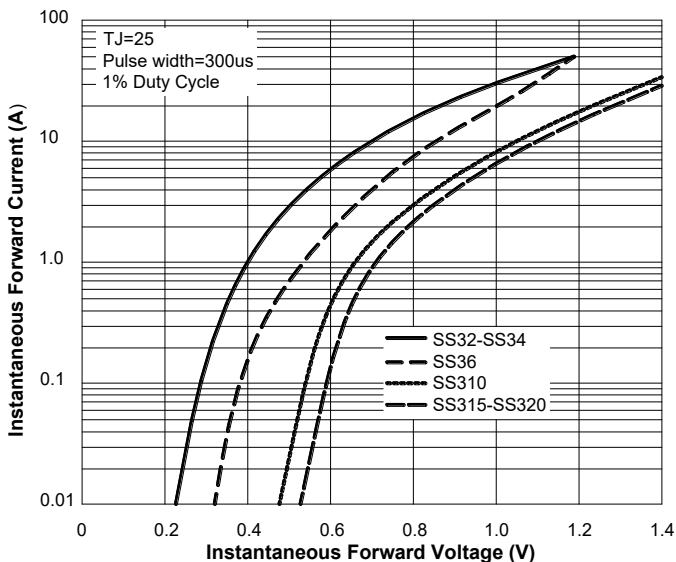
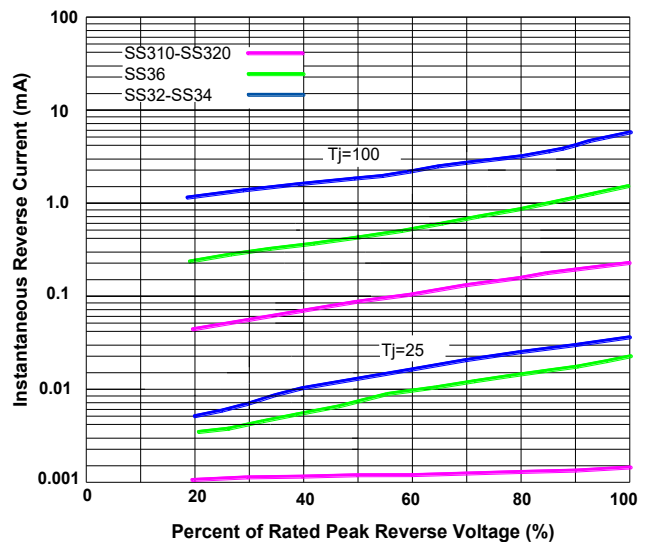
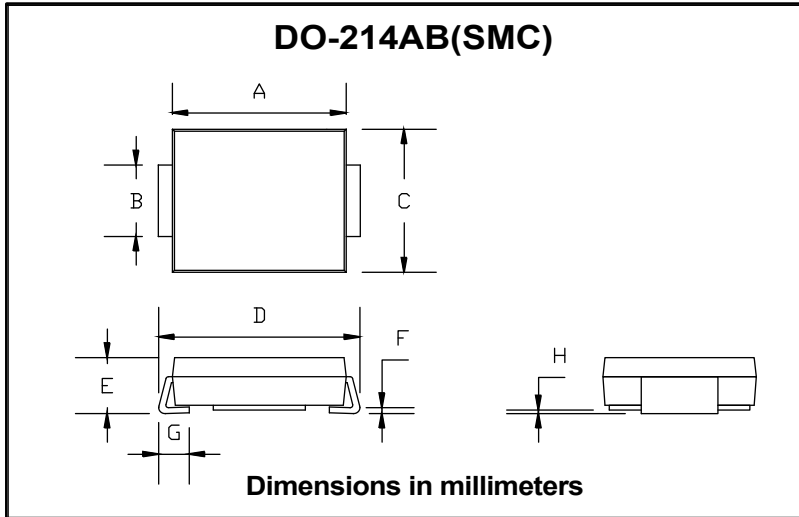


FIG.4: Typical Reverse Characteristics

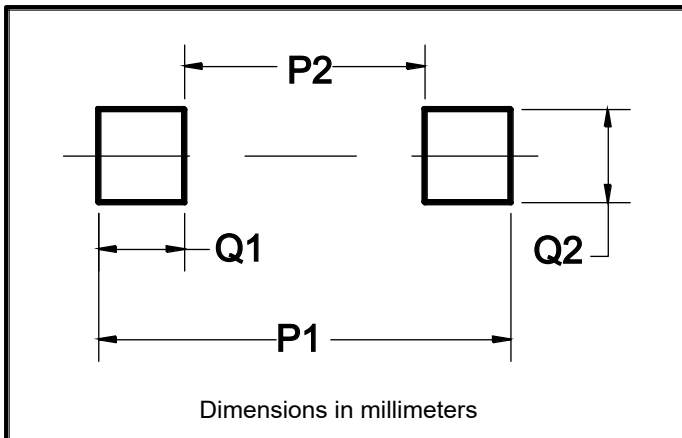


■ **OUTLINE DIMENSIONS**



| DO-214AB (SMC) | | |
|----------------|------|------|
| Dim | Min | Max |
| A | 6.60 | 7.11 |
| B | 2.85 | 3.27 |
| C | 5.59 | 6.22 |
| D | 7.75 | 8.13 |
| E | 1.99 | 2.61 |
| F | 0.15 | 0.31 |
| G | 0.76 | 1.52 |
| H | 0.10 | 0.20 |

■ **SUGGESTED PAD LAYOUT**



| Dim | Typ |
|-----|------|
| P1 | 9.9 |
| P2 | 3.84 |
| Q1 | 3.03 |
| Q2 | 3.82 |