

SM320A thru SM3100A

FEATURES

- * Plastic package has Underwriters Laboratory Flammability Classification 94V-0
- * Low power loss,high efficiency
- * For use in low voltage high frequency inverters, free wheeling,and polarity protection applications
- * Guardring for over voltage protection
- * High temperature soldering guaranteed: 260°C/10 seconds at terminals

Mechanical Data

- Case:** JEDEC DO-214AC, molded plastic over glass body
- Terminals:** Plated axial leads, solderable per MIL-STD-750, Method 2026
- Polarity:** Color band denotes cathode end
- Mounting Position:** Any
- Weight:** 0.0028 oz., 0.08 g
- Handling precaution:**None

Schottky Barrier Rectifiers

Reverse Voltage 20 to100V
Forward Current 3.0A



We declare that the material of product compliance with RoHS requirements.

Electrical Characteristic

Maximum Ratings & Thermal Characteristics Ratings at 25°C ambient temperature unless otherwise specified.

| Parameter Symbol | symbol | SM 320A | SM 330A | SM 340A | SM 350A | SM 360A | SM 380A | SM 3100A | Unit |
|--|-----------------|-------------|---------|---------|---------|---------|---------|----------|------|
| Maximum repetitive peak reverse voltage | V_{RRM} | 20 | 30 | 40 | 50 | 60 | 80 | 100 | V |
| Maximum RMS voltage | V_{RMS} | 14 | 21 | 28 | 35 | 42 | 56 | 70 | V |
| Maximum DC blocking voltage | V_{DC} | 20 | 30 | 40 | 50 | 60 | 80 | 100 | V |
| Maximum average forward rectified current 0.375" (9.5mm) lead length (See fig. 1) | $I_{F(AV)}$ | 3.0 | | | | | | | A |
| Peak forward surge current 8.3ms single half sine-wave superimposed on rated load (JEDEC Method) | I_{FSM} | 100 | | | | | | | A |
| Typical thermal resistance (Note 1) | $R_{\theta JA}$ | 50 | | | | | | | °C/W |
| Operating junction and storage temperature rang | TJ, TSTG | -40 to +125 | | | | | | | °C |

Electrical Characteristics Ratings at 25°C ambient temperature unless otherwise specified.

| Parameter Symbol | symbol | SM 320A | SM 330A | SM 340A | SM 350A | SM 360A | SM 380A | SM 3100A | Unit |
|--|--------|---------|---------|---------|---------|---------|---------|----------|------|
| Maximum instantaneous forward voltage at 3.0A | V_F | 0.50 | | | 0.70 | 0.85 | | | V |
| Maximum DC reverse current $T_A = 25^\circ\text{C}$ at rated DC blocking voltage $T_A = 100^\circ\text{C}$ | I_R | | | | 0.5 | | | | mA |
| Typical junction capacitance at 4.0V, 1MHz | CJ | | | | 110 | | | | PF |

NOTES:

1. Thermal resistance from junction to ambient at 0.375" (9.5mm) lead length, P.C.B. mounted

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Ratings and Characteristic Curves

(TA = 25°C unless otherwise noted)

Fig. 1 - Forward Current Derating Curve

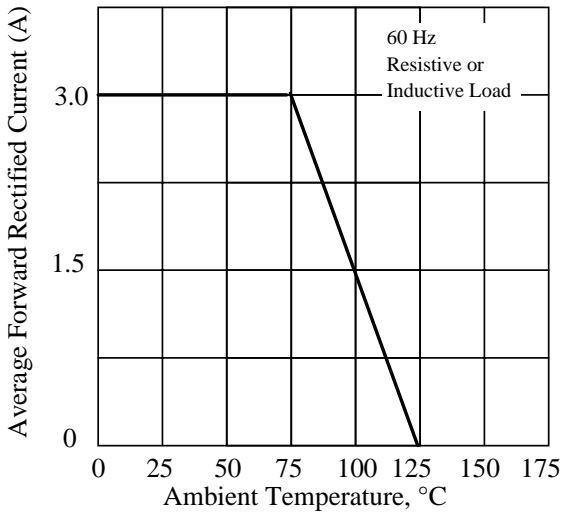


Fig. 2 - Maximum Non-repetitive Peak Forward Surge Current

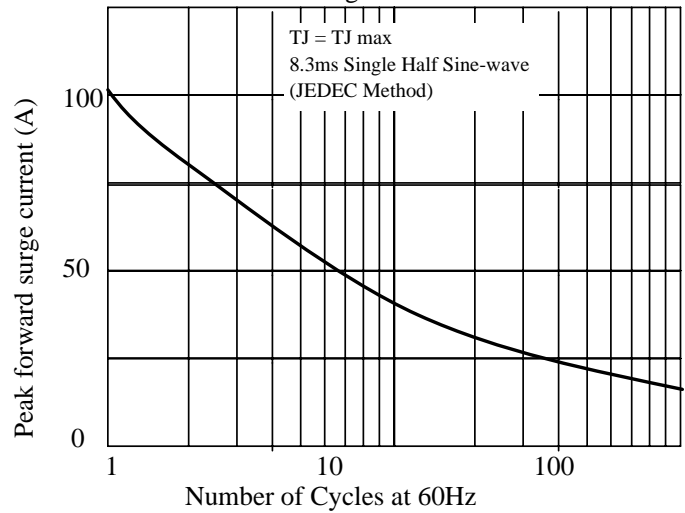


Fig 3. - Typical Instantaneous Forward Characteristics

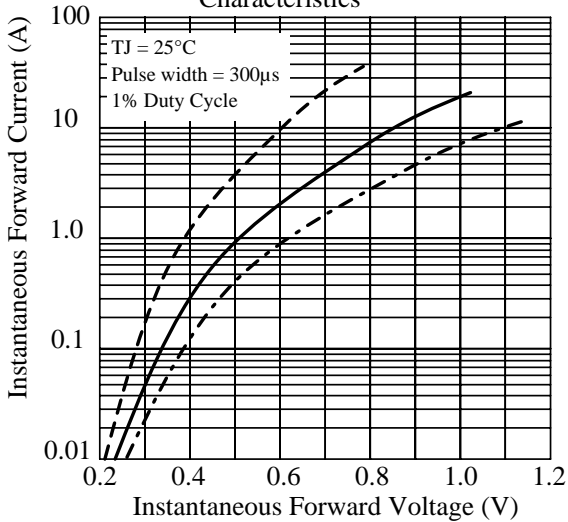


Fig 4. - Typical Reverse Characteristics

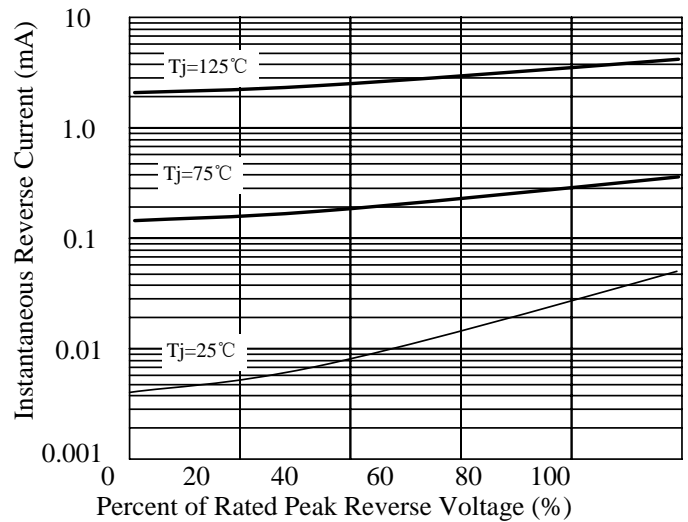


Fig 5. - typical transient thermal impedance

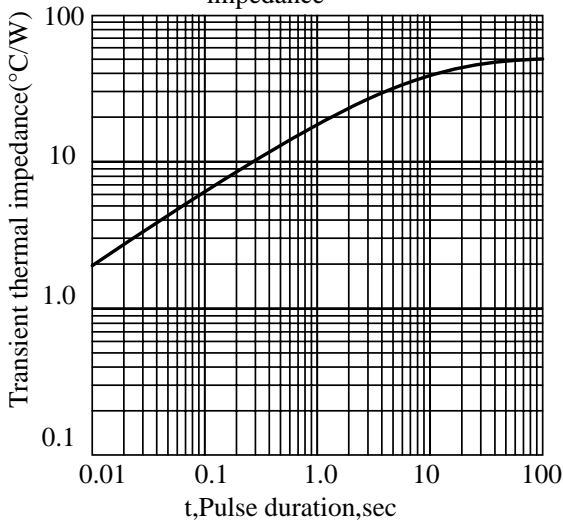
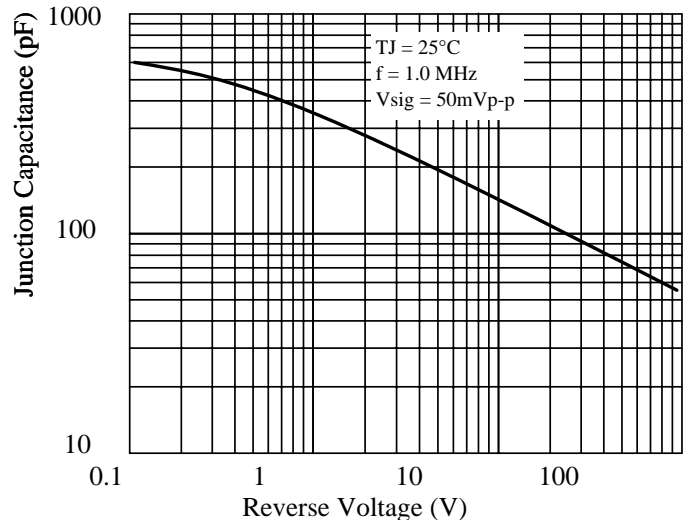
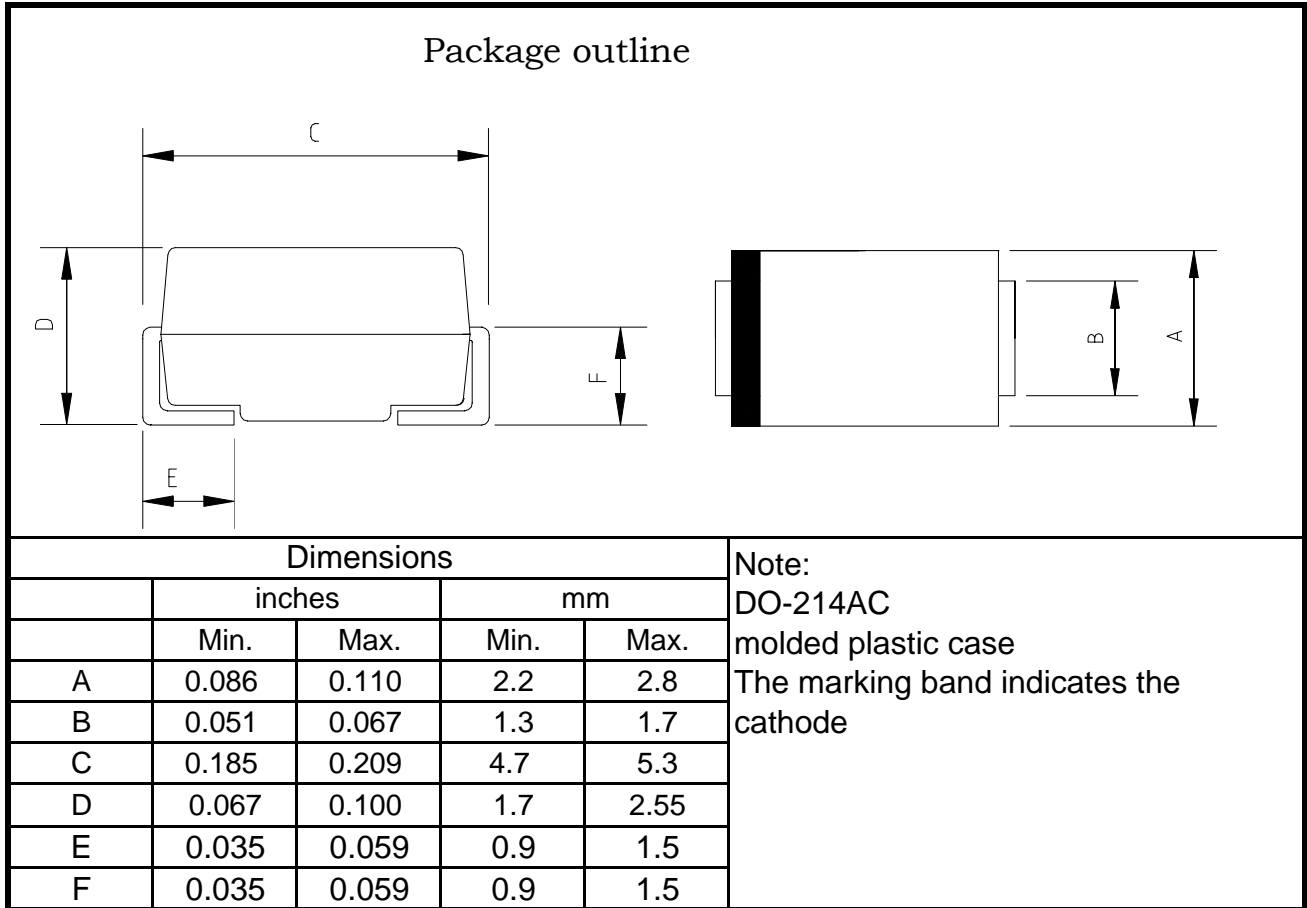


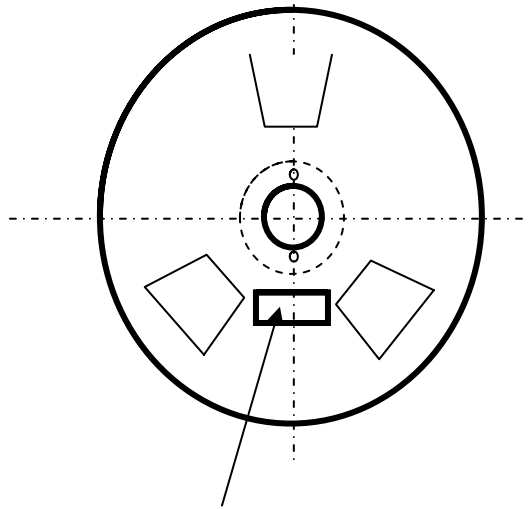
Fig 6. - Typical Junction Capacitance



Package Dimensions in inches and (millimeters)


SMA Packing Specification

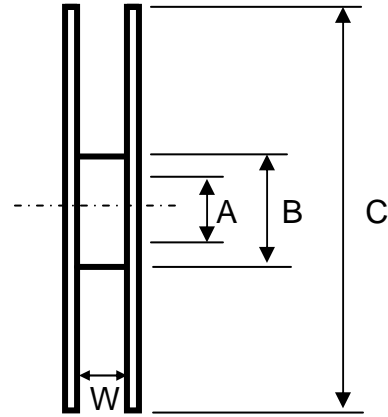
1. 卷盘规格/Reel Packing



Label stike this position

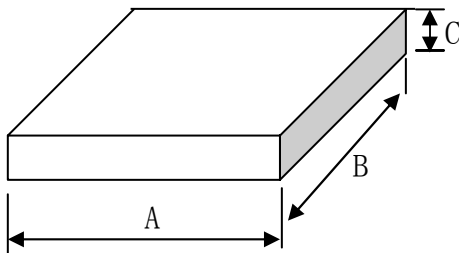
| Item | Q'ty/Taping |
|------|-------------|
| 7" | 2K |
| 13" | 5K |

Unit:mm



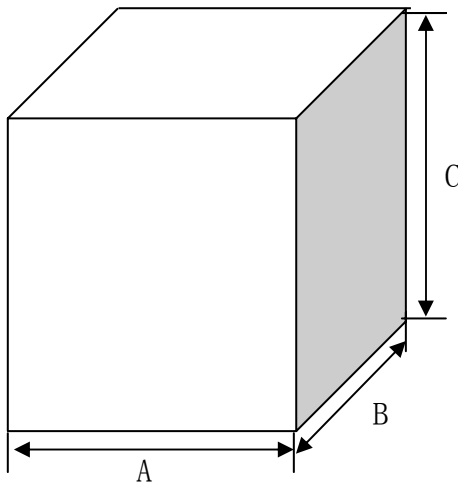
| Item | Symbol | Dimension |
|-------------|--------|-----------|
| 13" Size | A | 13.0±0.2 |
| | B | 75.0±0.5 |
| | C | 330±1.0 |
| | W | 13.2±1.0 |
| 7" Size | A | 13.0±0.2 |
| | B | 54±0.5 |
| | C | 177±1.0 |
| | W | 13.2±1.0 |

2. 内箱规格/ Inside Box Specification



| Item | Symbol | Dimension |
|------|--------|-----------|
| Size | A | 335±2 |
| | B | 335±2 |
| | C | 40±1 |

3. 外箱规格/Outer Box Specification



| Item | Symbol | Dimension |
|------|--------|-----------|
| Size | A | 350±2 |
| | B | 350±2 |
| | C | 345±2 |