

SM320B THRU SM3100B

VOLTAGE 20V ~ 100V

3.0AMP Surface Mount Schottky Barrier Rectifiers

FEATURES

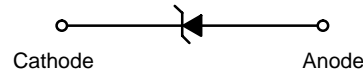
- * Ideal for surface mount applications
- * Easy pick and place
- * Built-in strain relief
- * Low forward voltage drop

MECHANICAL DATA

- * Case: Molded plastic
- * Epoxy: UL 94V-0 rate flame retardant
- * Metallurgically bonded construction
- * Polarity: Color band denotes cathode end
- * Mounting position: Any
- * Weight: 0.093 grams

DO-214AA

SMB



MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Rating 25°C ambient temperature unless otherwise specified.
Single phase half wave, 60Hz, resistive or inductive load.
For capacitive load, derate current by 20%.

| TYPE NUMBER | SM320B | SM330B | SM340B | SM350B | SM360B | SM380B | SM390B | SM3100B | UNITS |
|---|------------|--------|--------|--------|--------|--------|--------|---------|-------|
| Maximum Recurrent Peak Reverse Voltage | 20 | 30 | 40 | 50 | 60 | 80 | 90 | 100 | V |
| Maximum RMS Voltage | 14 | 21 | 28 | 35 | 42 | 56 | 63 | 70 | V |
| Maximum DC Blocking Voltage | 20 | 30 | 40 | 50 | 60 | 80 | 90 | 100 | V |
| Maximum Average Forward Rectified Current See Fig. 1 | 3.0 | | | | | | | | A |
| Peak Forward Surge Current, 8.3 ms single half sine-wave superimposed on rated load (JEDEC method) | 100 | | | | | | | | A |
| Maximum Instantaneous Forward Voltage at 3.0A | 0.55 | | 0.75 | | 0.85 | | | | V |
| Maximum DC Reverse Current Ta=25°C | 2.0 | | | | | | | | mA |
| at Rated DC Blocking Voltage Ta=100°C | 20 | | | | | | | | mA |
| Typical Junction Capacitance (Note 1) | 300 | | | | | | | | pF |
| Typical Thermal Resistance R JA (Note 2) | 17 | | | | | | | | °C/W |
| Operating Temperature Range Tj | -50 — +125 | | | | | | | | °C |
| Storage Temperature Range Tstg | -65 — +150 | | | | | | | | °C |

NOTES:

1. Measured at 1MHz and applied reverse voltage of 4.0V D.C.
2. Thermal Resistance Junction to Ambient.

RATING AND CHARACTERISTIC CURVES (SM320B THRU SM3100B)

FIG.1-TYPICAL FORWARD CURRENT DERATING CURVE

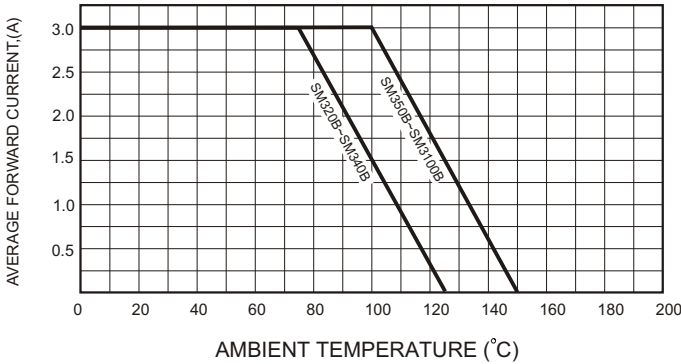


FIG.2-TYPICAL FORWARD CHARACTERISTICS

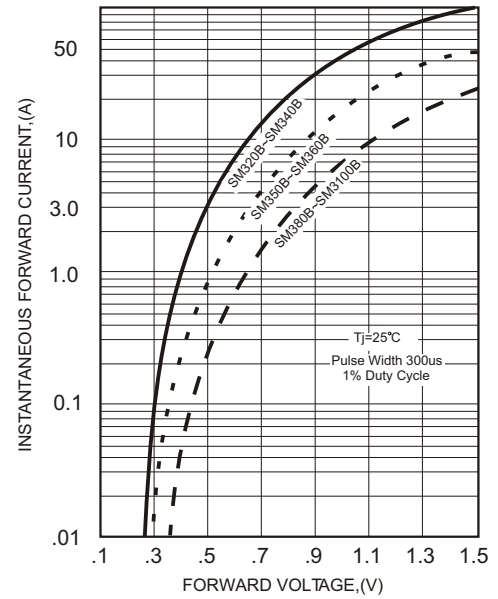


FIG.3-MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

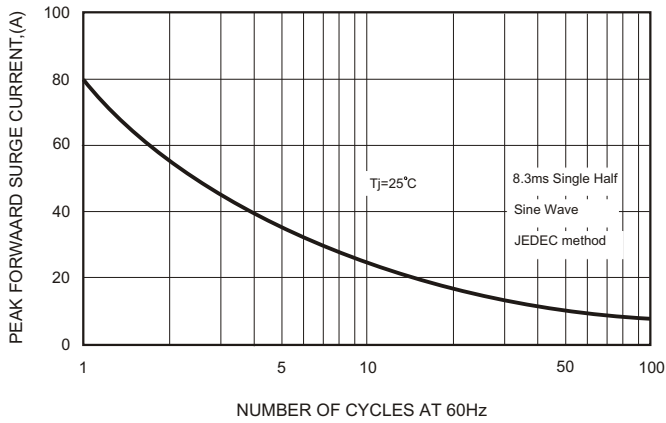


FIG.5 - TYPICAL REVERSE CHARACTERISTICS

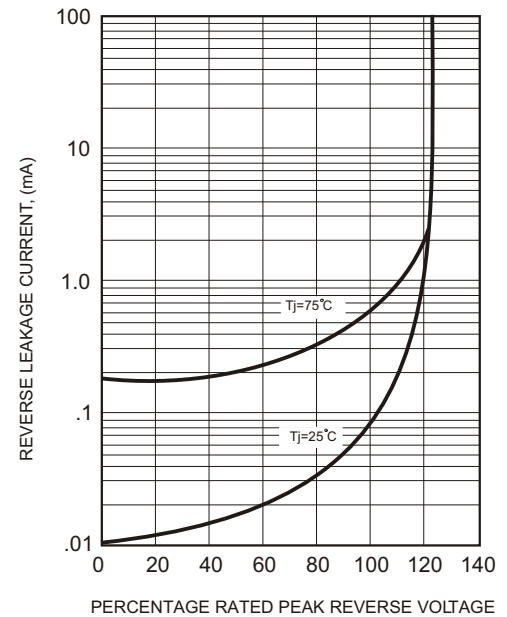
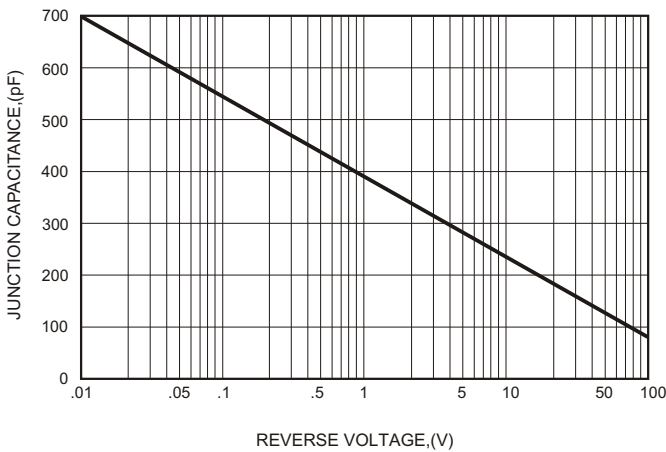
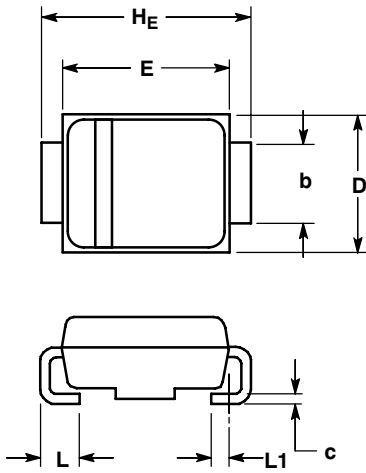


FIG.4-TYPICAL JUNCTION CAPACITANCE



PACKAGE DIMENSIONS

**SMB
DO-214AA**

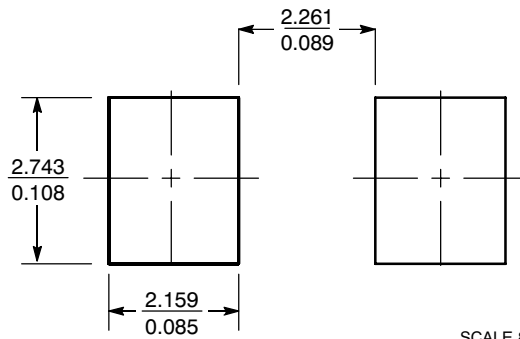


NOTES:

1. DIMENSIONING AND TOLERANCING PER ANSI Y14.5M, 1982.
2. CONTROLLING DIMENSION: INCH.
3. D DIMENSION SHALL BE MEASURED WITHIN DIMENSION P.

| DIM | MILLIMETERS | | | INCHES | | |
|-----|-------------|----------|------|--------|-----------|-------|
| | MIN | NOM | MAX | MIN | NOM | MAX |
| A | 1.90 | 2.13 | 2.45 | 0.075 | 0.084 | 0.096 |
| A1 | 0.05 | 0.10 | 0.20 | 0.002 | 0.004 | 0.008 |
| b | 1.96 | 2.03 | 2.20 | 0.077 | 0.080 | 0.087 |
| c | 0.15 | 0.23 | 0.31 | 0.006 | 0.009 | 0.012 |
| D | 3.30 | 3.56 | 3.95 | 0.130 | 0.140 | 0.156 |
| E | 4.06 | 4.32 | 4.60 | 0.160 | 0.170 | 0.181 |
| HE | 5.21 | 5.44 | 5.60 | 0.205 | 0.214 | 0.220 |
| L | 0.76 | 1.02 | 1.60 | 0.030 | 0.040 | 0.063 |
| L1 | | 0.51 REF | | | 0.020 REF | |

SOLDERING FOOTPRINT*

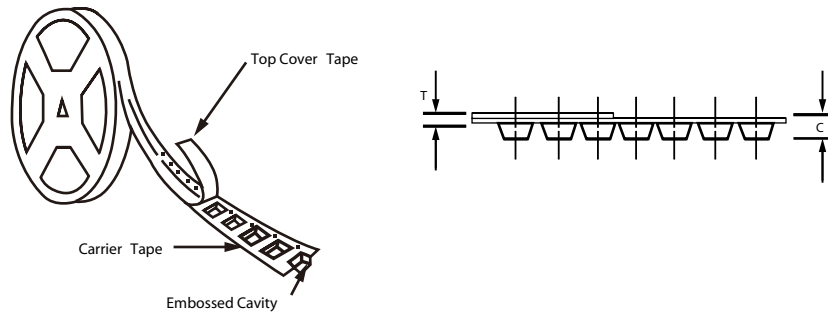
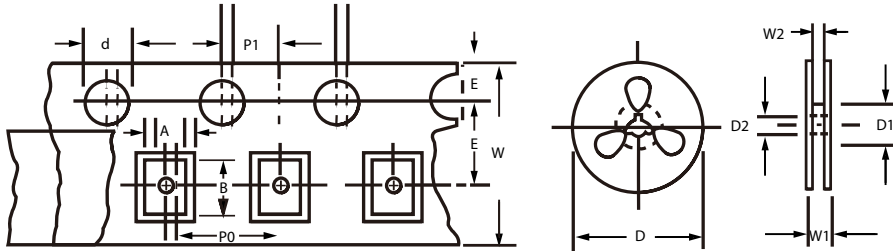


SCALE 8:1 (mm/inches)

Surface Mount Packaging

Packing

| DEVICE TYPE | Q'TY/REEL (PCS) | REEL DIA. (mm) | BOX SIZE (mm) | Q'TY/BOX (PCS) | CARTON / SIZE (mm) | Q'TY / CARTON (PCS) |
|-------------|-----------------|----------------|---------------|----------------|--------------------|---------------------|
| SMB | 3K | 330 | 337x337x39 | 6K | 380x220x370 | 30K |



Reel Taping Specifications for Surface Mount Devices

| Item | Symbol | SMA | SMB | SMC |
|------------------------|--------|--------------|--------------|--------------|
| Carrier width | A | 2.7 (max) | 4.0 (max) | 2.7 (max) |
| Carrier length | B | 5.3 (max) | 5.9 (max) | 5.3 (max) |
| Carrier depth | C | 2.66 (max) | 3.0 (max) | 2.66 (max) |
| Sprocket hole | d | 1.50±0.1 DIA | 1.50±0.1 DIA | 1.50±0.1 DIA |
| Reel outside diameter | D | 330±2 | 330±2 | 330±2 |
| Reel inner diameter | D1 | 50 min | 50 min | 50 min |
| Feed hole diameter | D2 | 13.5±1 | 13.5±1 | 13.5±1 |
| Sprocket hole position | E | 1.75±0.1 | 1.75±0.1 | 1.75±0.1 |
| Punch hole position | F | 5.5±0.05 | 5.5±0.05 | 7.5±0.1 |
| Sprocket hole pitch | P | 4.0±0.1 | 8.0±0.1 | 8.0±0.1 |
| Sprocket hole pitch | P0 | 4.0±0.1 | 4.0±0.1 | 4.0±0.1 |
| Embossment center | P1 | 2.0±0.05 | 2.0±0.05 | 2.0±0.05 |
| Overall tape thickness | T | 0.6 max | 0.6 max | 0.6 max |
| Tape width | W | 12.0±0.3 | 12.0±0.3 | 16.0±0.3 |
| Reel width | W1 | 18.4 (max) | 18.4 (max) | 22.4 (max) |
| Reed width | W2 | 14.4 (max) | 14.4 (max) | 18.4 (max) |

单击下面可查看定价，库存，交付和生命周期等信息

[>>LRC\(乐山无线电\)](#)