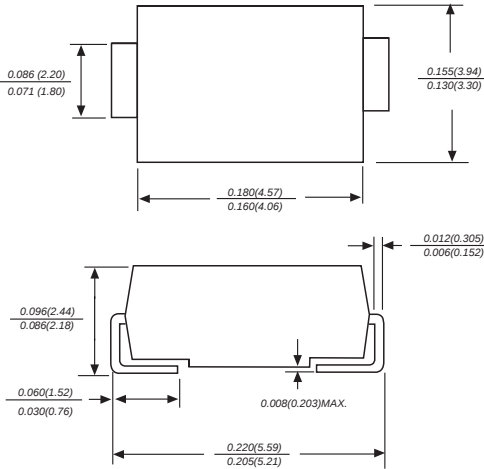


### DO-214AA/SMB



Dimensions in inches and (millimeters)

### FEATURES

- ◆ The plastic package carries Underwriters Laboratory Flammability Classification 94V-0
- ◆ For surface mounted applications
- ◆ Fast switching for high efficiency
- ◆ Low reverse leakage
- ◆ Built-in strain relief, ideal for automated placement
- ◆ High forward surge current capability
- ◆ High temperature soldering guaranteed: 250°C/10 seconds at terminals

### MECHANICAL DATA

**Case:** JEDEC DO-214AA molded plastic body

**Terminals:** Solder plated , solderable per MIL-STD-750, Method 2026

**Polarity:** Color band denotes cathode end

**Mounting Position:** Any

**Weight:** 0.005 ounce, 0.138 grams

### MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25°C ambient temperature unless otherwise specified.

Single phase half-wave 60Hz, resistive or inductive load, for capacitive load current derate by 20%.

|                                                                                                             | SYMBOLS                          | RS2A        | RS2B | RS2D | RS2G | RS2J | RS2K | RS2M | UNITS |
|-------------------------------------------------------------------------------------------------------------|----------------------------------|-------------|------|------|------|------|------|------|-------|
| Maximum repetitive peak reverse voltage                                                                     | V <sub>RRM</sub>                 | 50          | 100  | 200  | 400  | 600  | 800  | 1000 | VOLTS |
| Maximum RMS voltage                                                                                         | V <sub>RMS</sub>                 | 35          | 70   | 140  | 280  | 420  | 560  | 700  | VOLTS |
| Maximum DC blocking voltage                                                                                 | V <sub>DC</sub>                  | 50          | 100  | 200  | 400  | 600  | 800  | 1000 | VOLTS |
| Maximum average forward rectified current at T <sub>L</sub> =90°C                                           | I <sub>(AV)</sub>                | 2.0         |      |      |      |      |      |      | Amps  |
| Peak forward surge current<br>8.3ms single half sine-wave superimposed on rated load (JEDEC Method)         | I <sub>FSM</sub>                 | 50.0        |      |      |      |      |      |      | Amps  |
| Maximum instantaneous forward voltage at 2.0A                                                               | V <sub>F</sub>                   | 1.3         |      |      |      |      |      |      | Volts |
| 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>                   | 5.0<br>50.0 |      |      |      |      |      |      | μA    |
| Maximum reverse recovery time    (NOTE 1)                                                                   | t <sub>rr</sub>                  | 150         |      |      |      | 250  | 500  |      | ns    |
| Typical junction capacitance (NOTE 2)                                                                       | C <sub>J</sub>                   | 50.0        |      |      |      |      |      |      | pF    |
| Typical thermal resistance (NOTE 3)                                                                         | R <sub>θJA</sub>                 | 20.0        |      |      |      |      |      |      | °C/W  |
| Operating junction and storage temperature range                                                            | T <sub>J</sub> ,T <sub>STG</sub> | -65 to +150 |      |      |      |      |      |      | °C    |

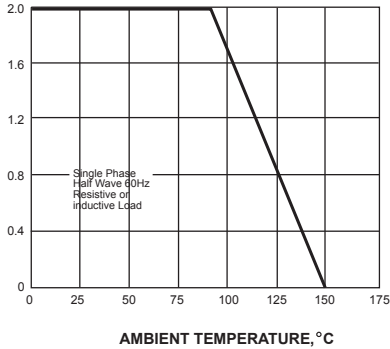
**Note:** 1. Reverse recovery condition  $I_F=0.5\text{A}$ ,  $I_R=1.0\text{A}$ ,  $I_{rr}=0.25\text{A}$

2. Measured at 1MHz and applied reverse voltage of 4.0V D.C.

3. P.C.B. mounted with 0.2x0.2" (5.0x5.0mm) copper pad areas

AVERAGE FORWARD RECTIFIED CURRENT,  
AMPERES

FIG. 1- FORWARD CURRENT DERATING CURVE



PEAK FORWARD SURGE CURRENT,  
AMPERES

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

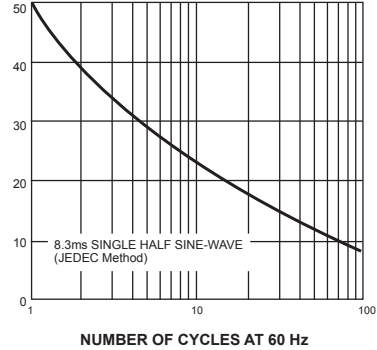
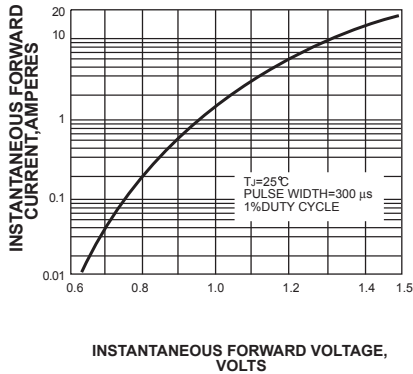


FIG. 3-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS



INSTANTANEOUS REVERSE CURRENT,  
MICROAMPERES

FIG. 4-TYPICAL REVERSE CHARACTERISTICS

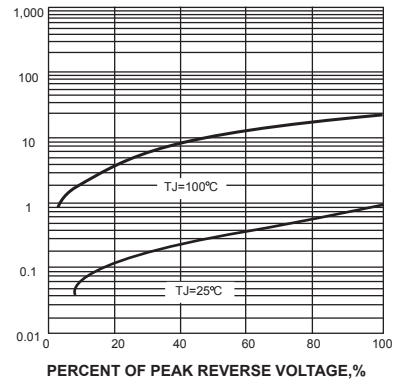
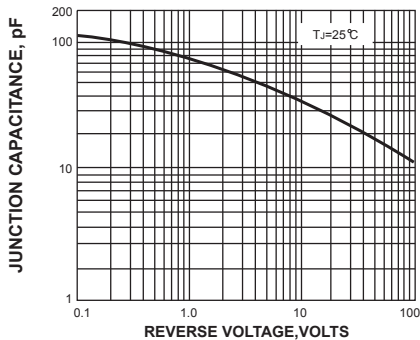
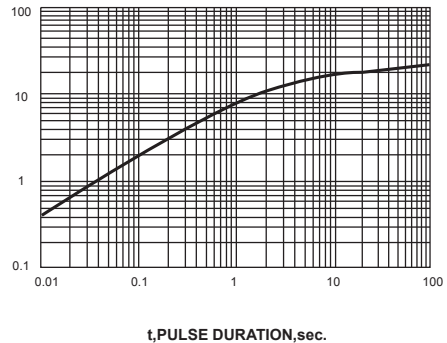


FIG. 5-TYPICAL JUNCTION CAPACITANCE



TRANSIENT THERMAL IMPEDANCE,  
°C/W

FIG. 6-TYPICAL TRANSIENT THERMAL IMPEDANCE

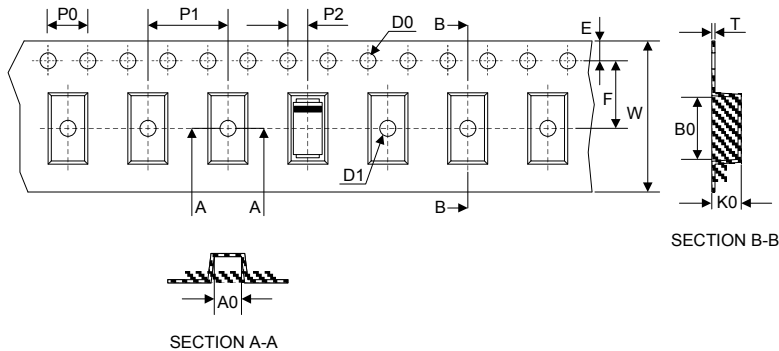




顺 烨 电 子  
Packaging

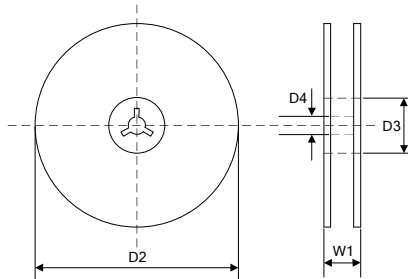
## RS2A THRU RS2M

Tape



| Symbol | Dimension (mm) |
|--------|----------------|
| W      | 12.00±0.20     |
| P0     | 4.00±0.10      |
| P1     | 8.00±0.10      |
| P2     | 2.00±0.10      |
| D0     | Φ1.55±0.10     |
| D1     | Φ1.5±0.10      |
| E      | 1.75±0.10      |
| F      | 5.50±0.10      |
| A0     | 3.86±0.15      |
| B0     | 5.65±0.10      |
| K0     | 2.75±0.15      |
| T      | 0.25±0.05      |

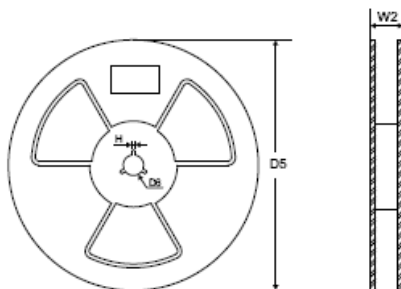
7" Reel



|    |            |
|----|------------|
| D2 | Φ178.0±2.0 |
| D3 | Φ50.0Min.  |
| D4 | Φ13.0±0.5  |
| W1 | 16.0±2.0   |

Quantity: 500PCS

13" Reel



|    |            |
|----|------------|
| D5 | Φ330.0±2.0 |
| D6 | Φ13.5±0.5  |
| H  | 2.5±1.0    |
| W2 | 16.0±2.0   |

Quantity: 3000PCS