

## Features

- ◆ Complete voltage range 3.3 to 100 volts
- ◆ High peak reverse power dissipation
- ◆ High reliability
- ◆ Low leakage current
- ◆ Standard zener voltage tolerance is  $\pm 5\%$ .

## Mechanical Data

**Case** : Molded plastic body

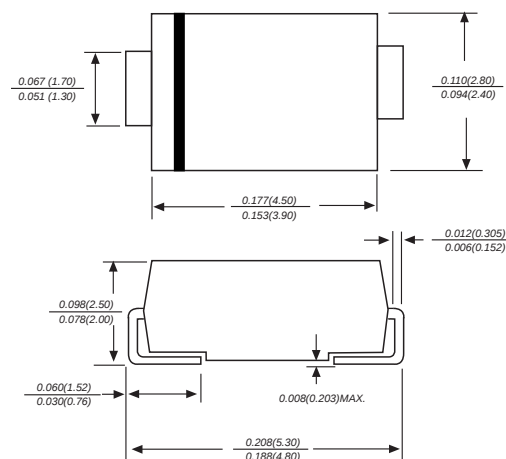
**Terminals** : Solder plated, solderable per MIL-STD-750, Method 2026

**Polarity** : Polarity symbol marking on body

**Mounting Position** : Any

**Weight** : 0.0023 ounce, 0.07 grams

## DO-214AC/SMA



Dimensions in inches and (millimeters)

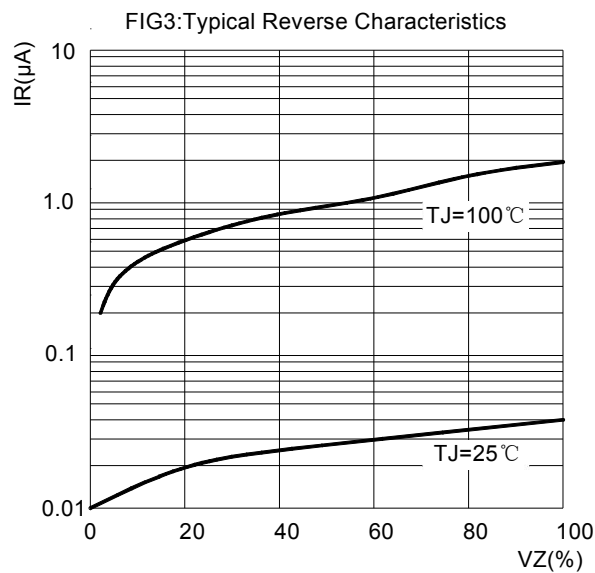
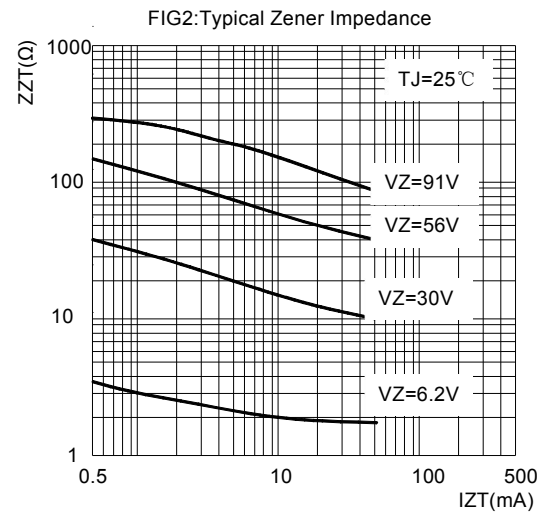
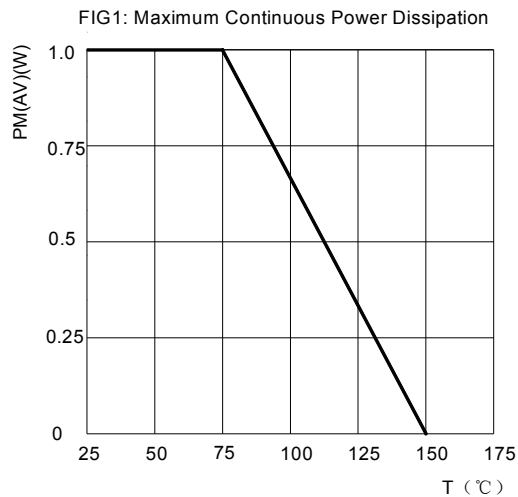
## Maximum Ratings And Electrical Characteristics

Ratings at 25°C ambient temperature unless otherwise specified.

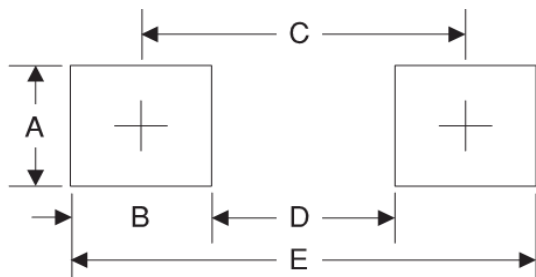
| Rating                                                   | Symbol | Value         | Unit             |
|----------------------------------------------------------|--------|---------------|------------------|
| DC Power Dissipation at $T_L = 75^\circ\text{C}$ (Note1) | $P_D$  | 1.0           | W                |
| Maximum Forward Voltage at $I_F = 200\text{ mA}$         | $V_F$  | 1.2           | V                |
| Junction Temperature Range                               | $T_J$  | - 55 to + 150 | $^\circ\text{C}$ |
| Storage Temperature Range                                | $T_S$  | - 55 to + 150 | $^\circ\text{C}$ |

| Type           | Device Marking | Nominal Zener Voltage |                  | Maximum Zener Impedance           |                                   |                  | Maximum Reverse Leakage Current  |      | Maximum DC Zener Current | Maximum Surge Current    |
|----------------|----------------|-----------------------|------------------|-----------------------------------|-----------------------------------|------------------|----------------------------------|------|--------------------------|--------------------------|
|                |                | $V_Z @ I_{ZT}$<br>(V) | $I_{ZT}$<br>(mA) | $Z_{ZT} @ I_{ZT}$<br>( $\Omega$ ) | $Z_{ZK} @ I_{ZK}$<br>( $\Omega$ ) | $I_{ZK}$<br>(mA) | $I_R @ V_R$<br>( $\mu\text{A}$ ) | (V)  | $I_{ZM}$<br>(mA)         | $I_{RM}^{(2)}$<br>(mApk) |
| SMAZ18-13-F-CN | 746A           | 18                    | 14.0             | 20                                | 750                               | 0.25             | 5.0                              | 13.7 | 50                       | 250                      |

## Ratings And Characteristic Curves

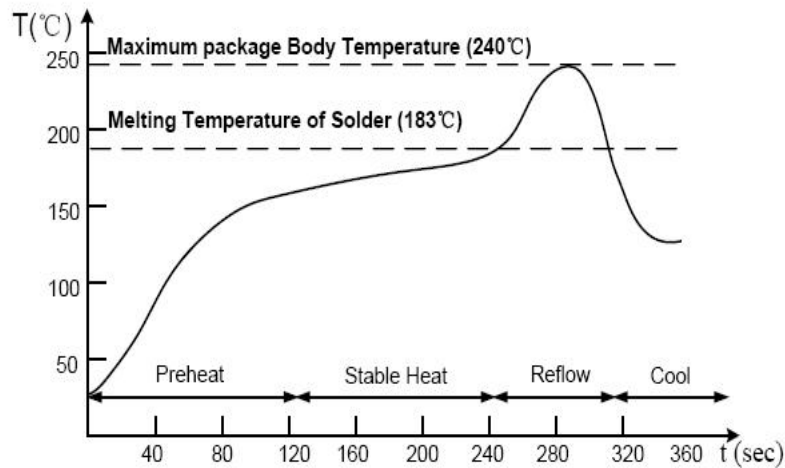


## Suggested Pad Layout



| Symbol | Unit (mm) | Unit (inch) |
|--------|-----------|-------------|
| A      | 1.68      | 0.066       |
| B      | 1.52      | 0.060       |
| C      | 3.90      | 0.154       |
| D      | 2.41      | 0.095       |
| E      | 5.45      | 0.215       |

## Suggested Soldering Temperature Profile

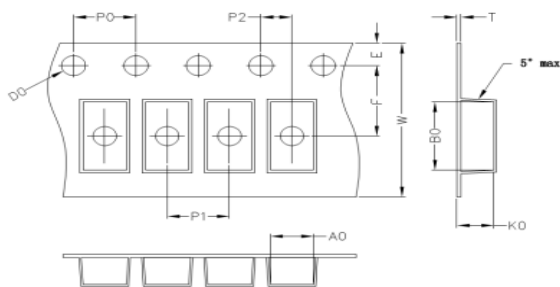


### Note

- Recommended reflow methods: IR, vapor phase oven, hot air oven, wave solder.
- The device can be exposed to a maximum temperature of 265°C for 10 seconds.
- Devices can be cleaned using standard industry methods and solvents.
- If reflow temperatures exceed the recommended profile, devices may not meet the performance requirements.

## Package Information

### Carrier Dimension(mm)



| A0   | B0   | K0   | D0   | E    | F         |
|------|------|------|------|------|-----------|
| 2.80 | 5.30 | 2.36 | 1.55 | 1.75 | 5.50      |
| P0   | P1   | P2   | T    | W    | Tolerance |
| 4.0  | 4.0  | 2.0  | 0.25 | 12   | 0.1       |

### Package Specifications

| Package | Reel Size | Reel DIA. (mm) | Q'TY/Reel (Kpcs) | Box Size (mm) | QTY/Box (Kpcs) | Carton Size (mm) | Q'TY/Carton (Kpcs) |
|---------|-----------|----------------|------------------|---------------|----------------|------------------|--------------------|
| SMA     | 11'       | 278            | 5                | 285           | 10             | 355*310*310      | 80                 |
|         | 13'       | 330            | 7.5              | 340           | 15             | 360*360*360      | 120                |

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