

# SMF3.3A

## 200W Surface Mount Unidirectional and Bidirectional Transient Voltage Suppressors Diodes- 3.3V

### Features

- For surface mounted applications in order to optimize board space.
- Low profile package.
- Excellent clamping capability.
- IEC61000-4-2 ESD 15kV Air, 8kV contact compliance
- Protects one I/O line
- Lead-free parts meet RoHS requirements.
- Meet HF requirements.

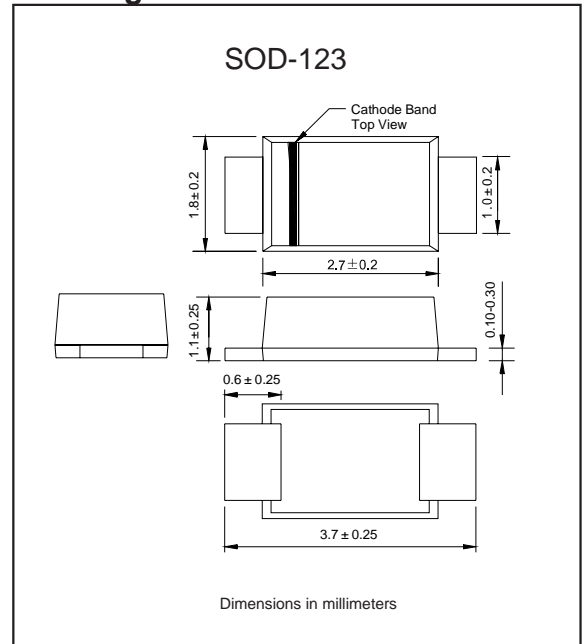
### Applications

- Personal digital assistants (PDA)
- Cellular handsets & Accessories
- Portable devices
- Portable instrumentation
- Handhelds and notebooks
- Digital cameras

### Mechanical data

- Epoxy : UL94-V0 rated flame retardant
- Case : Molded plastic, SOD-123
- Terminals : Plated terminals, solderable per MIL-STD-750, Method 2026
- Polarity : Indicated by cathode band
- Mounting Position : Any
- Weight : Approximated 0.02 gram

### Package outline



### Maximum ratings and Electrical Characteristics (AT $T_A=25^\circ\text{C}$ unless otherwise noted)

| Parameter  | Symbol        | Value       | Unit             |
|--|---------------|-------------|------------------|
| Storage and operating junction temperature range                               | $T_{STG}/T_J$ | -55 to +150 | $^\circ\text{C}$ |
| Steady state power dissipation on infinite heat sink at $T_L=75^\circ\text{C}$ | $P_{M(AV)}$   | 2.8         | W                |
| Peak pulse power dissipation on 10/1000 $\mu\text{s}$ waveform                 | $P_{PP}$      | 200         | W                |

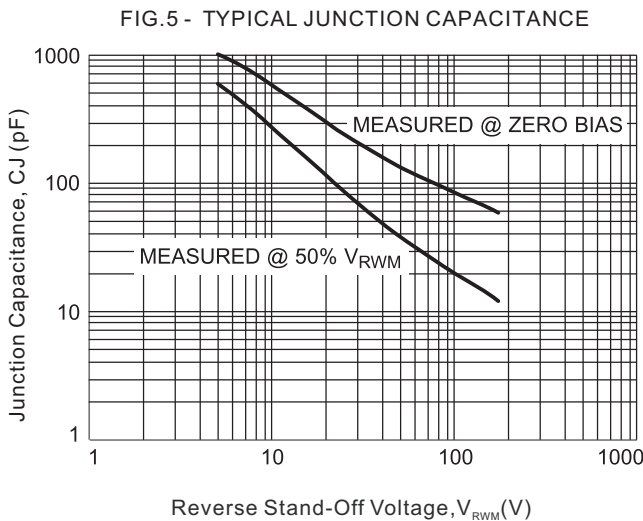
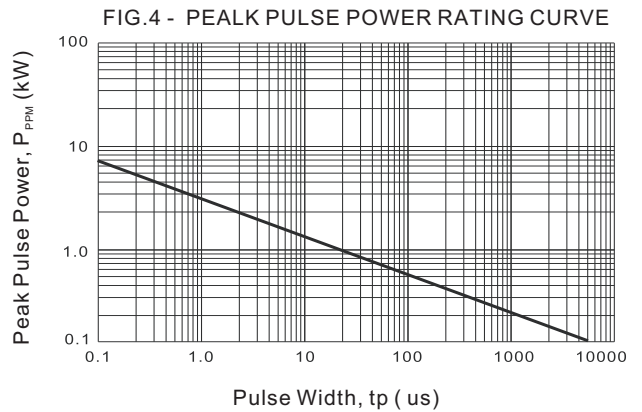
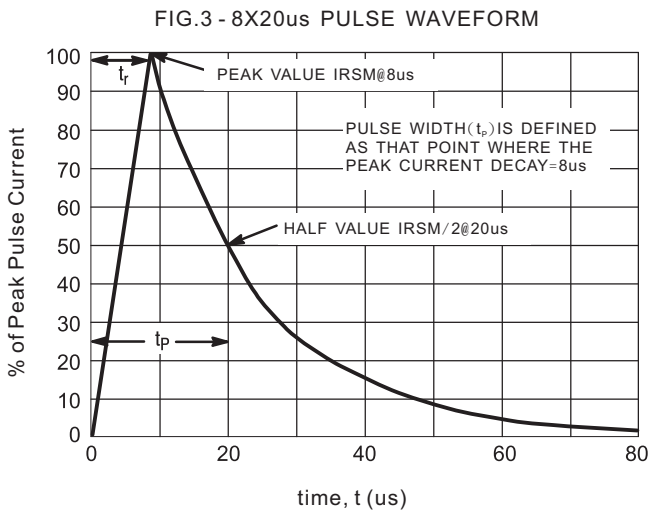
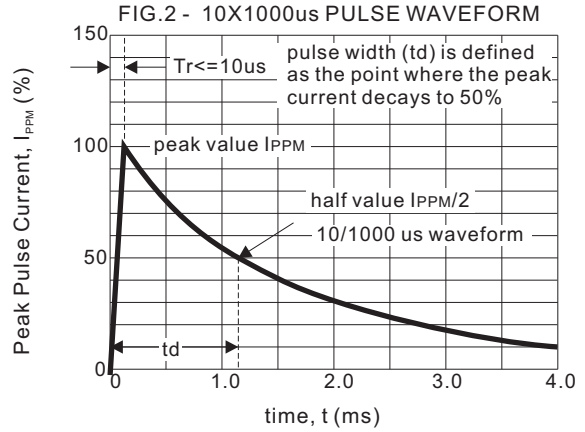
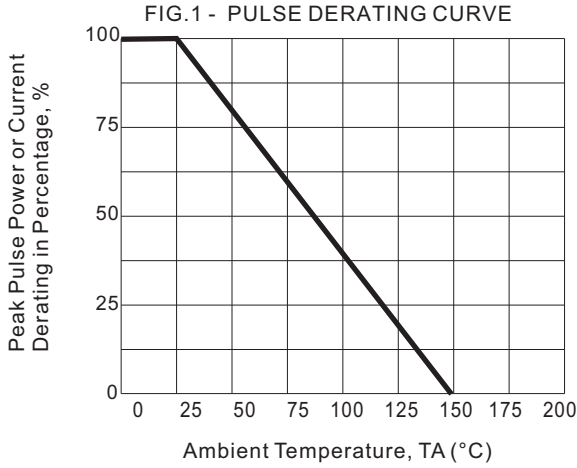
### Electrical characteristics (at $T = 25^\circ\text{C}$ unless otherwise noted)

| Part Number | $V_R$ | $I_R@V_R$     | $V_{BR}@I_T$ | $I_T$ | $V_C@I_{PP}$ | $I_{PP}^{(1)}$ | $C_O^{(2)}$ | Marking |
|-------------|-------|---------------|--------------|-------|--------------|----------------|-------------|---------|
|             | V     | $\mu\text{A}$ | V (min)      | mA    | V (max)      | A (max)        | pF (typ.)   |         |
| SMF3.3A     | 3.3   | 30            | 4.1          | 1     | 7.3          | 27             | 1900        | U03A    |

① Surge waveform: 10/1000 $\mu\text{s}$

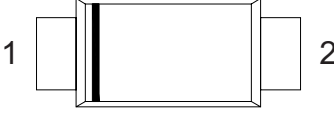

②  $C_O$  is measured at:  $V_{bias}=0\text{V}, V_{RMS}=0.1\text{V}, f=1\text{MHz}$

## Rating and characteristic curves (SMF SERIES)

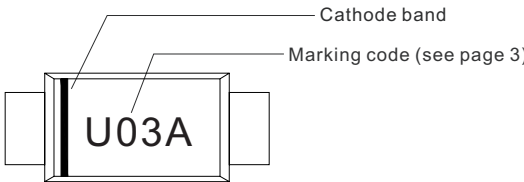


# SMF5.0(C)A THRU SMF170(C)A

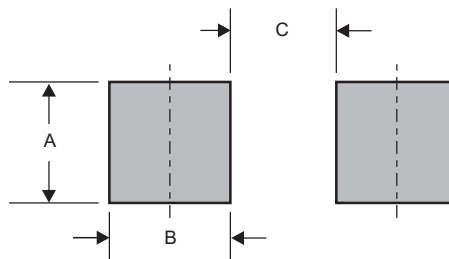
## Pinning information

| Pin   | Simplified outline  | Symbol  |
|---|---|---|
| Uni-Directional<br>Pin1 cathode<br>Pin2 anode |  |  |

## Marking

| Type number     | Example   |
|-----------------|---|
| Uni-Directional |  |

## Suggested solder pad layout



Dimensions in inches and (millimeters)

| PACKAGE | A            | B            | C            |
|---------|--------------|--------------|--------------|
| SOD-123 | 0.044 (1.10) | 0.040 (1.00) | 0.079 (2.00) |