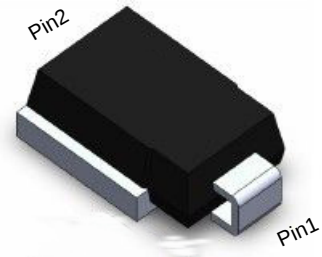


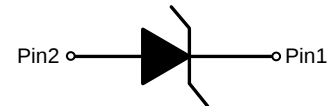
## Transient Voltage Suppressors

### FEATURES

- Available in uni-directional polarity only
- Peak pulse power:
  - 6600 W (10/1000  $\mu$ s)
- Stand off voltage range: 24.0V
- Unidirectional types
- Low leakage current:
  - 5.0  $\mu$ A at 25 °C
- Operating  $T_{j\max}$ : 150 °C
- JEDEC registered package outline



DO-218AB



Circuit diagram

### Complies with the following standards

- ISO 10605, C = 150 pF, R = 330  $\Omega$ :
  - 30 kV (air discharge)
  - 30 kV (contact discharge)
- ISO 10605, C = 330 pF, R = 330  $\Omega$ :
  - 30 kV (air discharge)
  - 30 kV (contact discharge)
- ISO 7637-2<sup>(a)</sup>
  - Pulse 1:  $V_S = -100$  V
  - Pulse 2a:  $V_S = +50$  V
  - Pulse 3a:  $V_S = -150$  V
  - Pulse 3b:  $V_S = +100$  V
  - Pulse 5a:  $V_S = +87$  V

### Order information

| Device     | Marking | Package  | Shipping |
|------------|---------|----------|----------|
| SM8S66W2DV | SM8S24A | DO-218AB | 750      |

| ELECTRICAL CHARACTERISTICS (JEDEC REGISTERED DATA) ( $T_A = 25$ °C unless otherwise noted) |                                                        |      |                         |                                |                                                      |                                                         |
|--------------------------------------------------------------------------------------------|--------------------------------------------------------|------|-------------------------|--------------------------------|------------------------------------------------------|---------------------------------------------------------|
| DEVICE TYPE                                                                                | BREAKDOWN VOLTAGE $V_{BR}$ AT $I_T$ <sup>(1)</sup> (V) |      | TEST CURRENT $I_T$ (mA) | STAND-OFF VOLTAGE $V_{WM}$ (V) | MAXIMUM REVERSE LEAKAGE AT $V_{WM}$ $I_D$ ( $\mu$ A) | MAXIMUM PEAK PULSE CURRENT $I_{PPM}$ <sup>(2)</sup> (A) |
|                                                                                            | MIN.                                                   | MAX. |                         |                                |                                                      |                                                         |
| SM8S66W2DV                                                                                 | 26.7                                                   | 29.5 | 5.0                     | 24.0                           | 10.0                                                 | 170.0                                                   |
|                                                                                            |                                                        |      |                         |                                |                                                      | 38.9                                                    |

## Transient Voltage Suppressors

RATINGS AND CHARACTERISTICS CURVES ( $T_A = 25^\circ\text{C}$  unless otherwise noted)

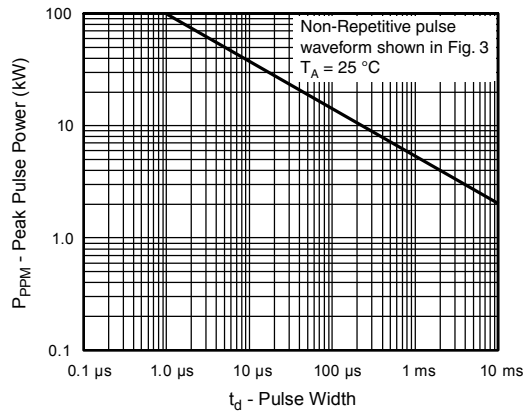


Fig. 1 - Peak Pulse Power Rating Curve

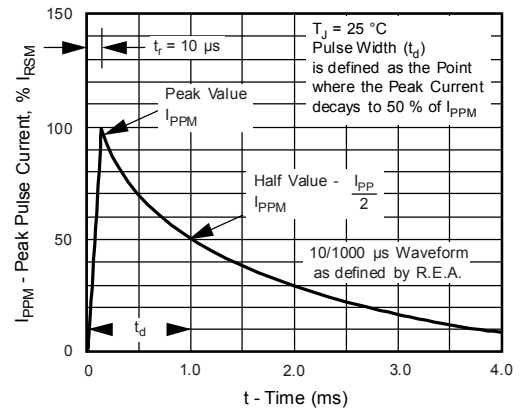


Fig. 3 - Pulse Waveform

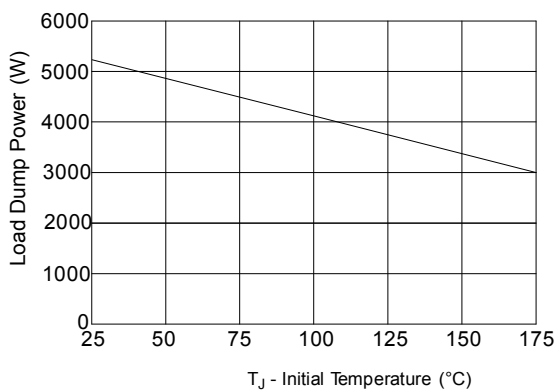


Fig. 2 - Pulse Power or Current vs. Initial Junction Temperature

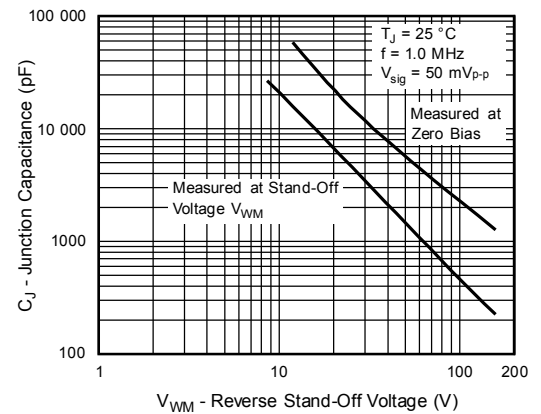
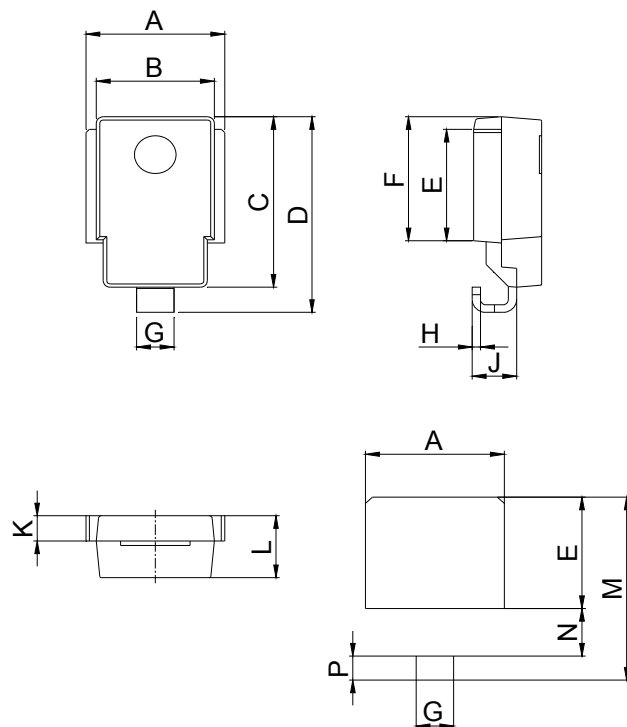


Fig. 4 - Typical Junction Capacitance

## Transient Voltage Suppressors

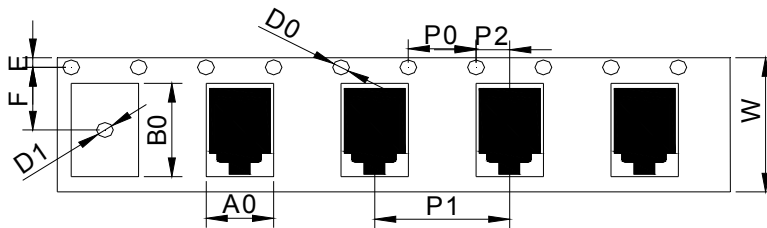
### PACKAGE MECHANICAL DATA



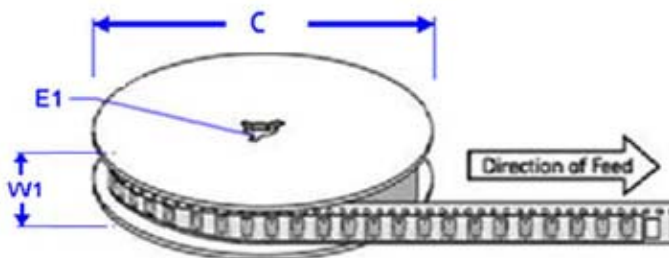
| Ref. | Dimensions  |      |        |       |
|------|-------------|------|--------|-------|
|      | Millimeters |      | Inches |       |
|      | Min.        | Max. | Min.   | Max.  |
| A    | 9.5         | 10.5 | 0.374  | 0.413 |
| B    | 8.3         | 8.7  | 0.327  | 0.342 |
| C    | 13.3        | 13.7 | 0.524  | 0.539 |
| D    | 15.0        | 16.0 | 0.592  | 0.628 |
| E    | 8.5         | 9.1  | 0.335  | 0.358 |
| F    | 9.5         | 10.1 | 0.374  | 0.398 |
| G    | 2.4         | 3.0  | 0.094  | 0.118 |
| H    | 0.5         | 0.7  | 0.020  | 0.028 |
| J    | 2.7         | 3.7  | 0.106  | 0.146 |
| K    | 1.9         | 2.1  | 0.075  | 0.083 |
| L    | 4.7         | 5.1  | 0.185  | 0.201 |
| M    | 14.2        | 14.8 | 0.559  | 0.583 |
| N    | 3.5         | 4.1  | 0.138  | 0.161 |
| P    | 1.6         | 2.2  | 0.063  | 0.087 |

## Transient Voltage Suppressors

### TAPE AND REEL SPECIFICATION-DO-218AB



| Ref. | Dimensions  |               |
|------|-------------|---------------|
|      | Millimeters | Inches        |
| A0   | 10.80 ± 0.3 | 0.425± 0.012  |
| B0   | 16.13 ± 0.3 | 0.635 ± 0.012 |
| C    | 330.0 ± 0.3 | 13.0 ± 0.012  |
| D0   | 1.55 ± 0.2  | 0.061 ± 0.008 |
| D1   | 1.55 ± 0.2  | 0.061± 0.008  |
| E    | 1.75 ± 0.2  | 0.069 ± 0.008 |
| E1   | 13.30 ± 0.2 | 0.524 ± 0.008 |
| F    | 11.50 ± 0.2 | 0.453 ± 0.008 |
| P0   | 4.00 ± 0.2  | 0.157 ± 0.008 |
| P1   | 16.00 ± 0.2 | 0.630 ± 0.008 |
| P2   | 2.00 ± 0.2  | 0.079 ± 0.008 |
| W    | 24.00 ± 0.2 | 0.945 ± 0.008 |
| W1   | 25.85 ± 0.2 | 1.018 ± 0.008 |



### ORDERING INFORMATION

| PART No.   | UNIT WEIGHT (g)<br>typ | REEL<br>(PCS) | PER CARTON<br>(PCS) | DESCRIPTION       |
|------------|------------------------|---------------|---------------------|-------------------|
| SM8S66W2DV | 2.985                  | 750           | 3000                | 13 inch reel pack |