

|           |    |   |
|-----------|----|---|
| $V_{RWM}$ | 22 | V |
| $P_{PP}$  | 40 | W |
| $V_{CL}$  | 38 | V |

### ● Features

- Small mold type
- High reliability

### ● Application

- ESD Protection

### ● Structure

- Silicon Epitaxial Planar

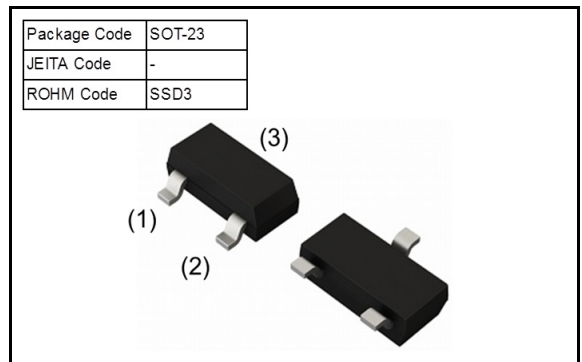
### ● Absolute Maximum Rating

| Parameter            | Symbol    | Conditions                     | Min.    | Max. | Unit |    |
|----------------------|-----------|--------------------------------|---------|------|------|----|
| Peak Pulse Power     | $P_{pp}$  | $t_p=10/1000\mu s$             | -       | 40   | W    |    |
| Power dissipation    | $P_D$     | on Glass-epoxy substrate       | -       | 225  | mW   |    |
|                      |           | on Alumina substrate           | -       | 300  | mW   |    |
| Junction temperature | $T_j$     | -                              | -       | 150  | °C   |    |
| Storage temperature  | $T_{stg}$ | -                              | -65     | 150  | °C   |    |
| ESD capability       | $V_{ESD}$ | IEC61000-4-2*                  | Contact | -    | 30   | kV |
|                      |           |                                | Air     | -    | 30   | kV |
|                      |           | Machine model                  | -       | 2    | kV   |    |
|                      |           | Human body model (MIL-STD-883) | -       | 8    | kV   |    |
|                      |           | CDM (Charged device model)     | -       | 500  | V    |    |

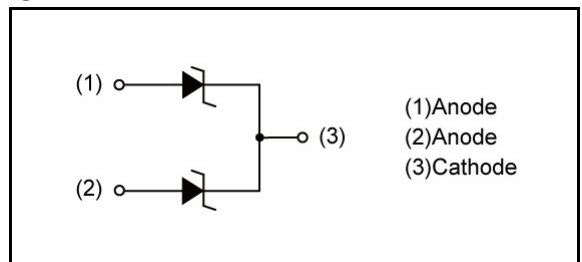
\*IEC61000-4-2

C=150pF R=330Ω

### ● Outline



### ● Inner Circuit



### ● Packaging Specification

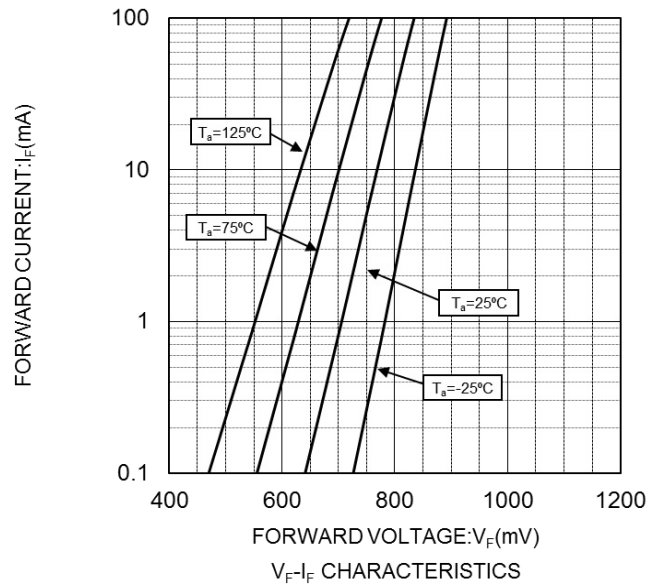
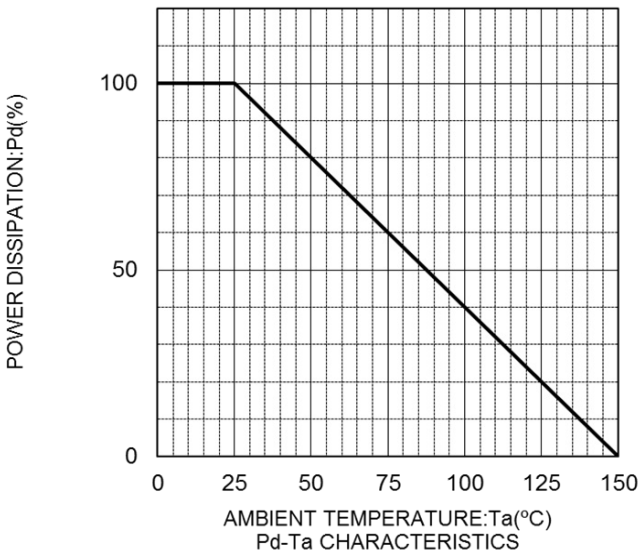
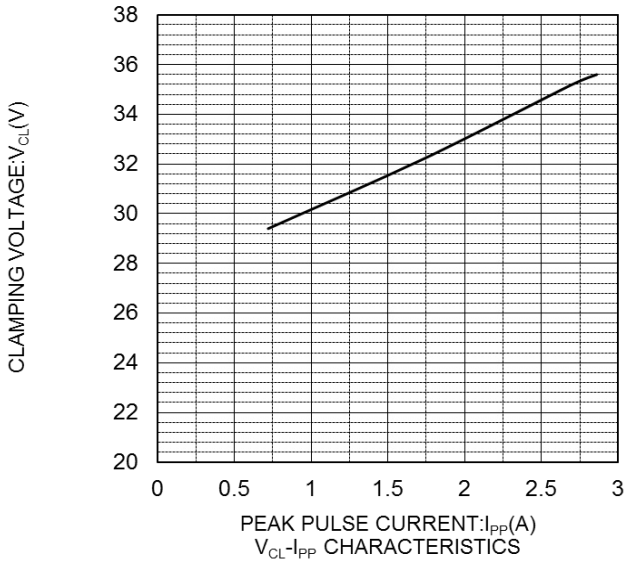
| Packing                  | Embossed Tape |
|--------------------------|---------------|
| Reel Size(mm)            | 180           |
| Taping Width(mm)         | 8             |
| Basic Ordering Unit(pcs) | 3000          |
| Taping Code              | T116          |
| Marking                  | 5T            |

## ● Characteristics

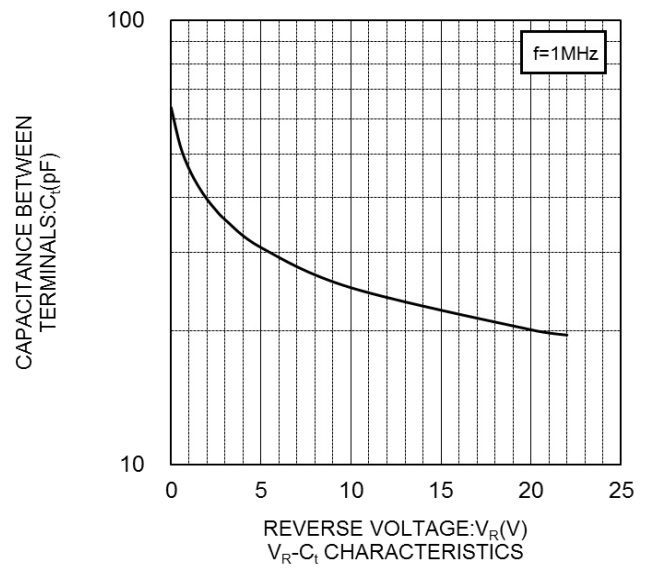
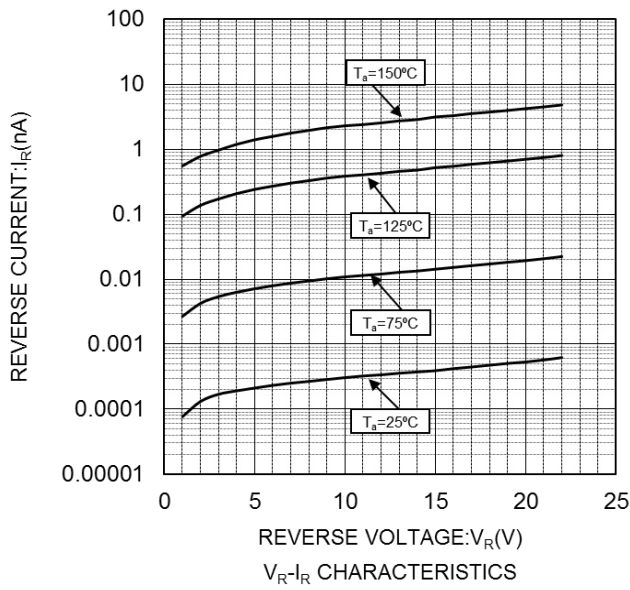
| Parameter                 | Symbol    | Conditions                 | Min.  | Typ. | Max.  | Unit |
|---------------------------|-----------|----------------------------|-------|------|-------|------|
| Reverse Stand-off voltage | $V_{RWM}$ | -                          | -     | -    | 22    | V    |
| Breakdown voltage         | $V_{BR}$  | $I_T=1mA$                  | 25.65 | -    | 28.35 | V    |
| Reverse current           | $I_R$     | $V_R=22V$                  | -     | -    | 50    | nA   |
| Clamping voltage          | $V_{CL}$  | $I_{pp}=1A, t_p=10/1000us$ | -     | -    | 38    | V    |
| Forward voltage           | $V_F$     | $I_F=200mA$                | -     | -    | 1.1   | V    |

Breakdown voltage ( $V_{BR}$ ) time is 40ms .

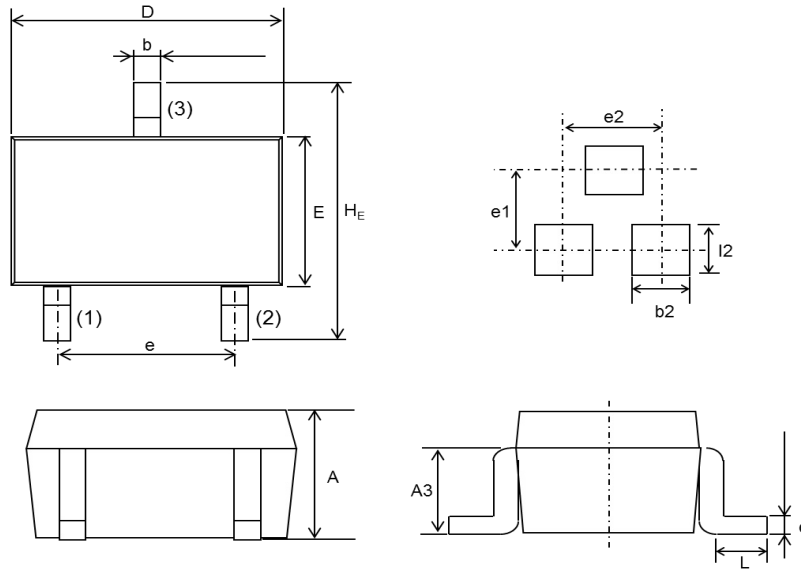
● Characteristic Curves



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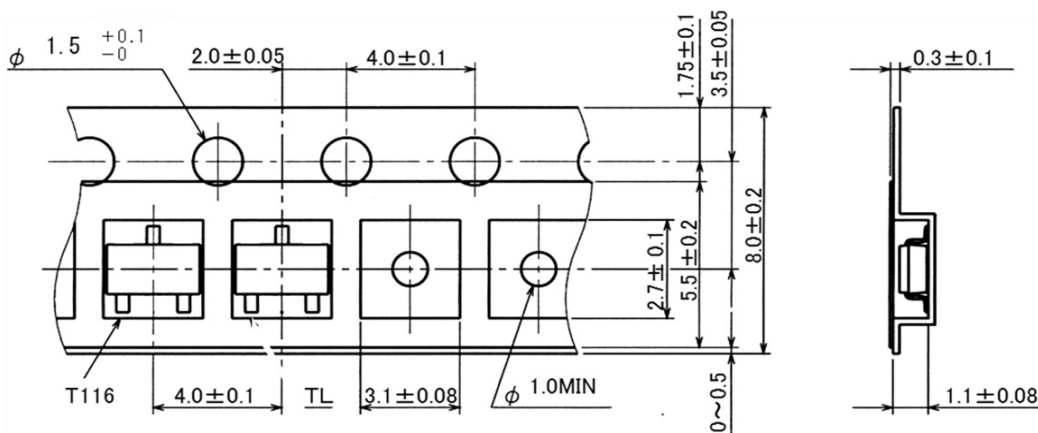


● Dimensions (SOT-23 SSD3)



| DIM            | Millimeters |         |      | Inches |         |       |
|----------------|-------------|---------|------|--------|---------|-------|
|                | Min.        | Average | Max. | Min.   | Average | Max.  |
| A              | 0.85        | 0.95    | 1.15 | 0.033  | 0.037   | 0.045 |
| A3             | 0.35        | 0.45    | 0.55 | 0.014  | 0.018   | 0.022 |
| b              | 0.35        | 0.40    | 0.50 | 0.014  | 0.016   | 0.020 |
| c              | 0.09        | 0.15    | 0.25 | 0.004  | 0.006   | 0.010 |
| D              | 2.70        | 2.90    | 3.10 | 0.106  | 0.114   | 0.122 |
| E              | 1.20        | 1.30    | 1.50 | 0.047  | 0.051   | 0.059 |
| H <sub>E</sub> | 2.20        | 2.40    | 2.60 | 0.087  | 0.094   | 0.102 |
| L              | 0.20        | -       | -    | 0.008  | -       | -     |
| e              | 1.70        | 1.90    | 2.10 | 0.067  | 0.075   | 0.083 |
| l2             | 1.00        | -       | -    | 0.039  | -       | -     |
| b2             | 0.80        | -       | -    | 0.031  | -       | -     |
| e1             | -           | 2.10    | -    | -      | 0.083   | -     |
| e2             | -           | 1.90    | -    | -      | 0.075   | -     |

● Taping (Unit:mm)





## MMBZ27VCL - Web Page

[Distribution Inventory](#)

|                             |           |
|-----------------------------|-----------|
| Part Number                 | MMBZ27VCL |
| Package                     | SOT-23    |
| Unit Quantity               | 3000      |
| Minimum Package Quantity    | 3000      |
| Packing Type                | Taping    |
| Constitution Materials List | inquiry   |
| RoHS                        | Yes       |