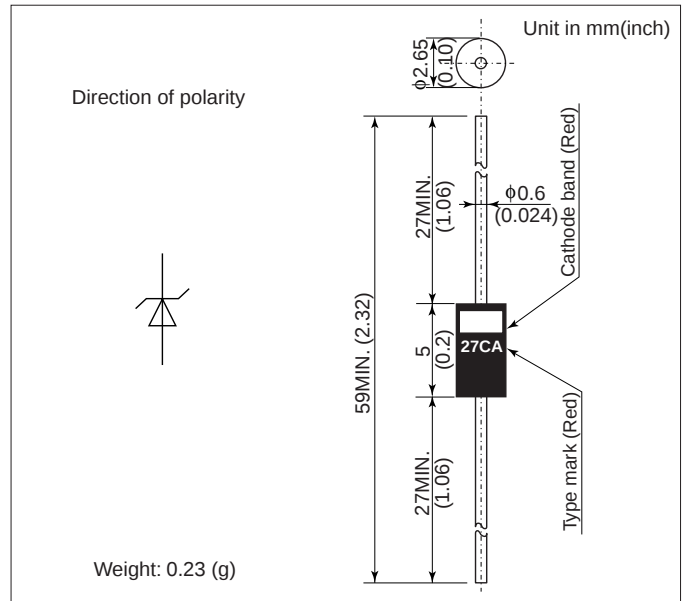


# DAM1A

## FEATURES

- High transient reverse power capability suitable for protecting automobile electronic components etc.
- Diffused-junction. Resin encapsulated.

## OUTLINE DRAWING



## ABSOLUTE MAXIMUM RATINGS

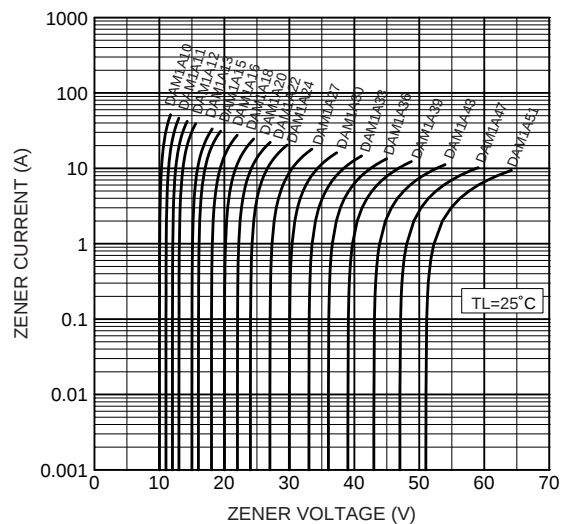
| Items                                             | Symbols   | Units            | Ratings                                                               |
|---------------------------------------------------|-----------|------------------|-----------------------------------------------------------------------|
| Non-Repetitive Peak Reverse One-Cycle Dissipation | $P_{RSM}$ | W                | 600 (Rectangular pulse $t=0.1\text{ms}$ $T_i=25^\circ\text{C}$ start) |
| Operating Junction Temperature                    | $T_j$     | $^\circ\text{C}$ | -40 ~ +150                                                            |
| Storage Temperature                               | $T_{stg}$ | $^\circ\text{C}$ | -40 ~ +150                                                            |
| DC Reverse Voltage                                | $V_{DC}$  | V                | Refer to characteristics column                                       |

## CHARACTERISTICS ( $T_i=25^\circ\text{C}$ )

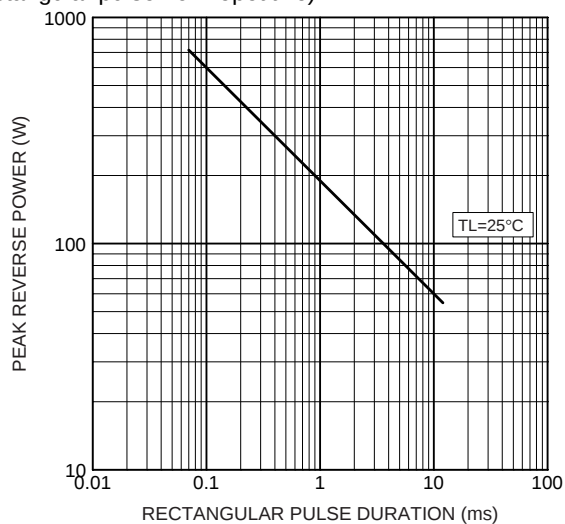
| Type    | DC Reverse Voltage<br>$V_{DC}$ (V) | Characteristics         |         |                                       |                         | Maximum Reverse Current |           |
|---------|------------------------------------|-------------------------|---------|---------------------------------------|-------------------------|-------------------------|-----------|
|         |                                    | Zener Voltage $V_z$ (V) |         | Maximum Dynamic Impedance $Z_z$ (ohm) | Test Current $I_z$ (mA) |                         |           |
|         |                                    | Minimum                 | Maximum |                                       |                         | $I_{RRM}$ ( $\mu A$ )   | $V_R$ (V) |
|         |                                    |                         |         |                                       |                         |                         |           |
| DAM1A10 | 7                                  | 9.4                     | 10.6    | 15                                    | 25                      | 50                      | 7         |
| DAM1A11 | 8                                  | 10.4                    | 11.6    | 15                                    | 25                      | 50                      | 8         |
| DAM1A12 | 9                                  | 11.4                    | 12.7    | 15                                    | 25                      | 50                      | 9         |
| DAM1A13 | 10                                 | 12.4                    | 14.1    | 15                                    | 25                      | 50                      | 10        |
| DAM1A15 | 11                                 | 13.5                    | 15.6    | 15                                    | 25                      | 50                      | 11        |
| DAM1A16 | 12                                 | 15.3                    | 17.1    | 15                                    | 15                      | 50                      | 12        |
| DAM1A18 | 13                                 | 16.8                    | 19.1    | 15                                    | 15                      | 50                      | 13        |
| DAM1A20 | 14                                 | 18.8                    | 21.2    | 15                                    | 15                      | 50                      | 14        |
| DAM1A22 | 16                                 | 20.8                    | 23.3    | 15                                    | 15                      | 50                      | 16        |
| DAM1A24 | 18                                 | 22.7                    | 25.6    | 15                                    | 10                      | 50                      | 18        |
| DAM1A27 | 20                                 | 25.1                    | 28.9    | 15                                    | 10                      | 50                      | 20        |
| DAM1A30 | 22                                 | 28.0                    | 32.0    | 15                                    | 10                      | 50                      | 22        |
| DAM1A33 | 24                                 | 31.0                    | 35.0    | 15                                    | 10                      | 50                      | 24        |
| DAM1A36 | 26                                 | 33.4                    | 38.6    | 15                                    | 10                      | 50                      | 26        |
| DAM1A39 | 28                                 | 36.1                    | 41.9    | 30                                    | 10                      | 50                      | 28        |
| DAM1A43 | 31                                 | 39.8                    | 46.2    | 30                                    | 6                       | 50                      | 31        |
| DAM1A47 | 34                                 | 43.3                    | 50.7    | 30                                    | 6                       | 50                      | 34        |
| DAM1A51 | 37                                 | 46.9                    | 55.1    | 30                                    | 6                       | 50                      | 37        |

# DAM1A

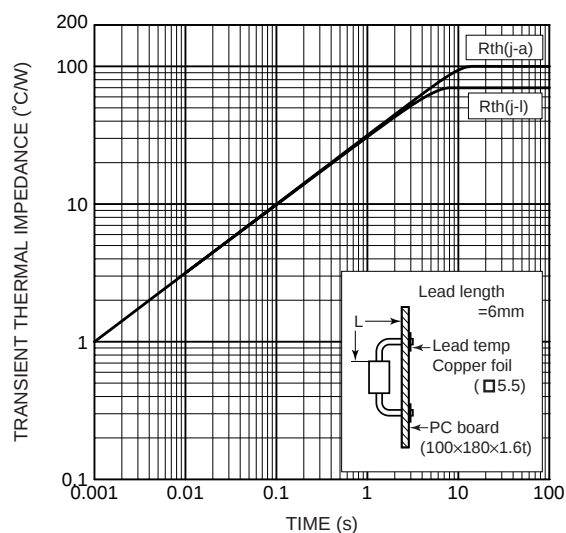
Typical zener characteristics



Typical reverse power characteristic  
(Rectangular pulse non-repetitive)



Transient thermal impedance



# HITACHI POWER SEMICONDUCTORS

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