SURGE SUPPRESSOR DIODE

# DAM15SMC

## FEATURES

- Glass passivated junction
- Low incremental surge resistance
- Excellent clamping capability and Fast response time to clamping voltage
- Plastic package has Underwriters Laboratory Flammability Classification 94V-0

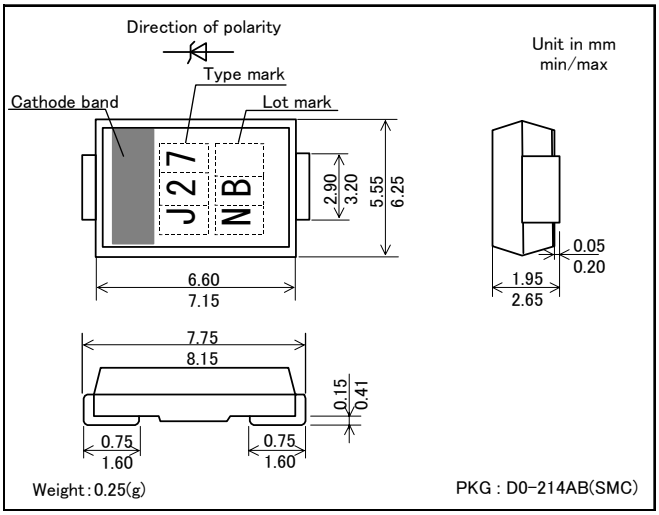
## PACKAGE DATA

- JEDEC DO-214AB modeled plastic body

## REMARKS

- These products are under development, please contact us for the latest version and information.

## OUTLINE DRAWING




## ABSOLUTE MAXIMUM RATINGS

| Items | Symbols | Units | Ratings |
|---|---|---|---|
| Peak Pulse Power Dissipation | $P_{PPM}$ | W | 1500(10/1000μs waveform.See Fig.1, $T_j$=25°C start) |
| Surge(Non-Repetitive) Forward Current | $I_{FSM}$ | A | 200(Without PIV, 8.3ms conduction, Tj=40°C start) |
| Operating Junction Temperature | $T_j$ | °C | -65 ~ +150 |
| Storage Temperature | $T_{stg}$ | °C | -65 ~ +175 |
| Stand-off Voltage | $V_{RM}$ | V | Refer to characteristics column |

## CHARACTERISTICS($T_L$=25°C)

| Type | Stand-off Voltage $V_{RM}$ (V) | Characteristics | | | | Maximum Peak Pulse Surge Current $I_{PPM}$(A) | Maximum Clamping Voltage at $I_{PPM}$ $V_C$(V) |
|---|---|---|---|---|---|---|---|
| | | Breakdown Voltage$V_{BR}$ (V) | | Test Current Iz (mA) | Maximum Reverse Leakage at $V_{RM}$ $I_{RRM}$(μA) | | |
| | | Minimum | Maximum | | | | |
| DAM15SMC12 | 9.7 | 11.4 | 12.7 | 1 | 2 | 86.7 | 17.3 |
| DAM15SMC13 | 10.5 | 12.4 | 14.1 | 1 | 2 | 78.9 | 19.0 |
| DAM15SMC15 | 12.1 | 13.5 | 15.6 | 1 | 1 | 68.2 | 22.0 |
| DAM15SMC16 | 12.9 | 15.3 | 17.1 | 1 | 1 | 63.8 | 23.5 |
| DAM15SMC18 | 14.5 | 16.8 | 19.1 | 1 | 1 | 56.6 | 26.5 |
| DAM15SMC20 | 16.2 | 18.8 | 21.2 | 1 | 1 | 51.5 | 29.1 |
| DAM15SMC22 | 17.8 | 20.8 | 23.3 | 1 | 1 | 47.0 | 31.9 |
| DAM15SMC24 | 19.4 | 22.7 | 25.6 | 1 | 1 | 43.2 | 34.7 |
| DAM15SMC27 | 21.8 | 25.1 | 28.9 | 1 | 1 | 38.4 | 39.1 |
| DAM15SMC30 | 24.3 | 28.0 | 32.0 | 1 | 1 | 34.5 | 43.5 |
| DAM15SMC33 | 26.8 | 31.0 | 35.0 | 1 | 1 | 31.4 | 47.7 |
| DAM15SMC36 | 29.1 | 33.4 | 38.6 | 1 | 1 | 28.8 | 52.0 |
| DAM15SMC39 | 31.6 | 36.1 | 41.9 | 1 | 1 | 26.6 | 56.4 |
| DAM15SMC43 | 34.8 | 39.8 | 46.2 | 1 | 1 | 24.2 | 61.9 |
| DAM15SMC47 | 38.0 | 43.3 | 50.7 | 1 | 1 | 22.2 | 67.7 |
| DAM15SMC51 | 41.3 | 46.9 | 55.1 | 1 | 1 | 20.3 | 74.0 |
| DAM15SMC68 | 55.1 | 61.2 | 74.8 | 1 | 1 | 15.3 | 98.0 |
| DAM15SMC75 | 60.7 | 67.5 | 82.5 | 1 | 1 | 13.9 | 107.6 |
| DAM15SMC82 | 66.4 | 73.8 | 90.2 | 1 | 1 | 12.7 | 117.9 |

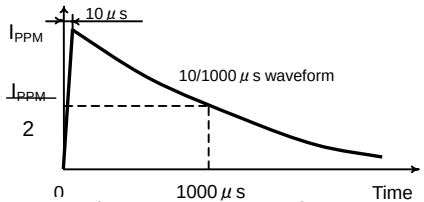
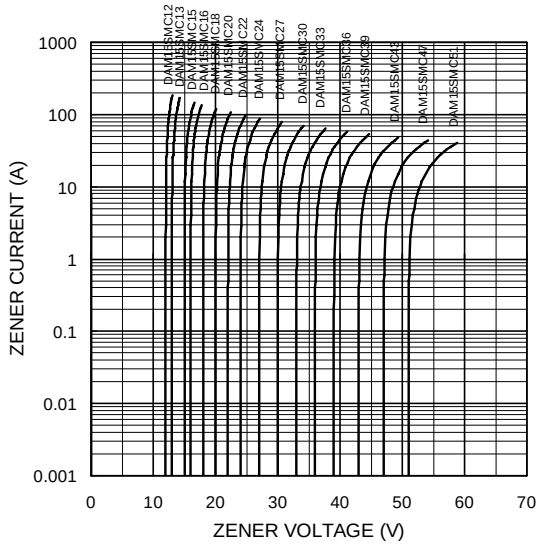


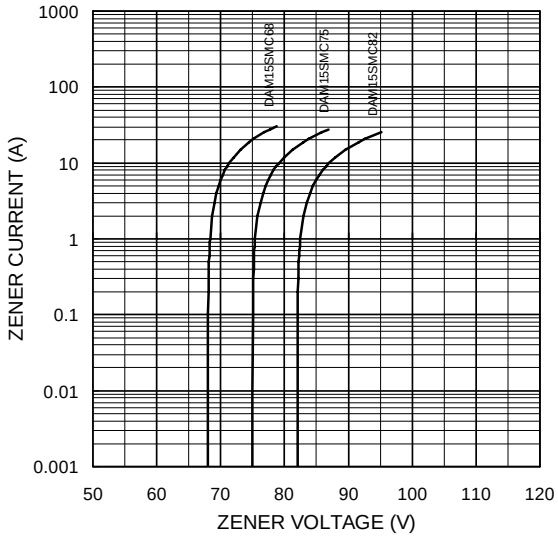

Figure 1. $P_{PPM}$ waveform

# DAM15SMC

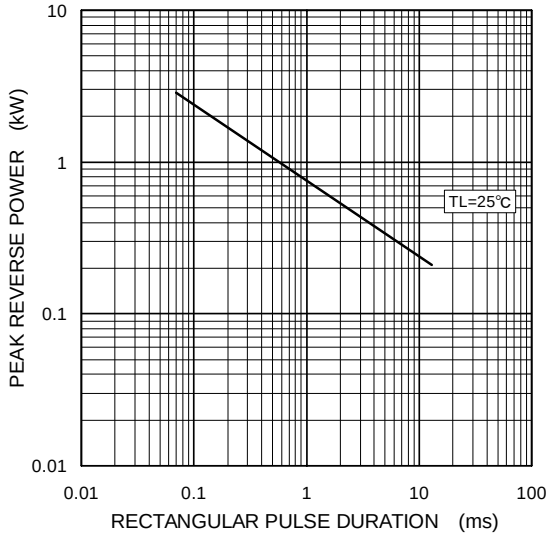
ツェナー特性（代表値）
Typical zener characteristics ( Vz : 10 – 51V )



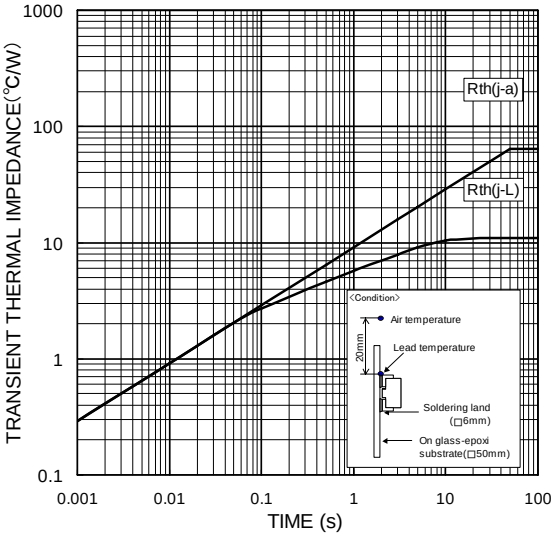

ツェナー特性（代表値）
Typical zener characteristics ( Vz : 68 – 82V )




逆耐量特性（矩形波パルス非繰り返し）
Typical reverse power characteristics
(Rectangular pulse non-repetitive)




過渡熱インピーダンス
Transient thermal impedance



# HITACHI POWER SEMICONDUCTORS

## Notices

1. The information given herein, including the specifications and dimensions, is subject to change without prior notice to improve product characteristics. Before ordering, purchasers are advised to contact Hitachi sales department for the latest version of this data sheets.
2. Please be sure to read "Precautions for Safe Use and Notices" in the individual brochure before use.
3. In cases where extremely high reliability is required (such as use in nuclear power control, aerospace and aviation, traffic equipment, life-support-related medical equipment, fuel control equipment and various kinds of safety equipment), safety should be ensured by using semiconductor devices that feature assured safety or by means of users' fail-safe precautions or other arrangement. Or consult Hitachi's sales department staff.
4. In no event shall Hitachi be liable for any damages that may result from an accident or any other cause during operation of the user's units according to this data sheets. Hitachi assumes no responsibility for any intellectual property claims or any other problems that may result from applications of information, products or circuits described in this data sheets.
5. In no event shall Hitachi be liable for any failure in a semiconductor device or any secondary damage resulting from use at a value exceeding the absolute maximum rating.
6. No license is granted by this data sheets under any patents or other rights of any third party or Hitachi, Ltd.
7. This data sheets may not be reproduced or duplicated, in any form, in whole or in part , without the expressed written permission of Hitachi, Ltd.
8. The products (technologies) described in this data sheets are not to be provided to any party whose purpose in their application will hinder maintenance of international peace and safety not are they to be applied to that purpose by their direct purchasers or any third party. When exporting these products (technologies), the necessary procedures are to be taken in accordance with related laws and regulations.

■ For inquiries relating to the products, please contact nearest overseas representatives which is located "Inquiry" portion on the top page of a home page.

Hitachi power semiconductor home page address http://www.hitachi.co.jp/products/power/pse/

**HITACHI**