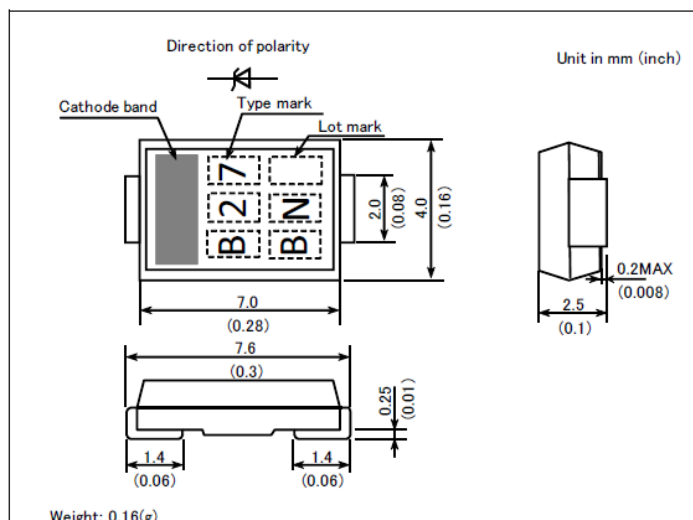


DAM3MB

FEATURES

- High transient reverse power capability suitable for protecting automobile electronic components etc.
- AEC-Q101 qualified
- RoHS compliant (Included RoHS exemption substance)

OUTLINE DRAWING



ABSOLUTE MAXIMUM RATINGS

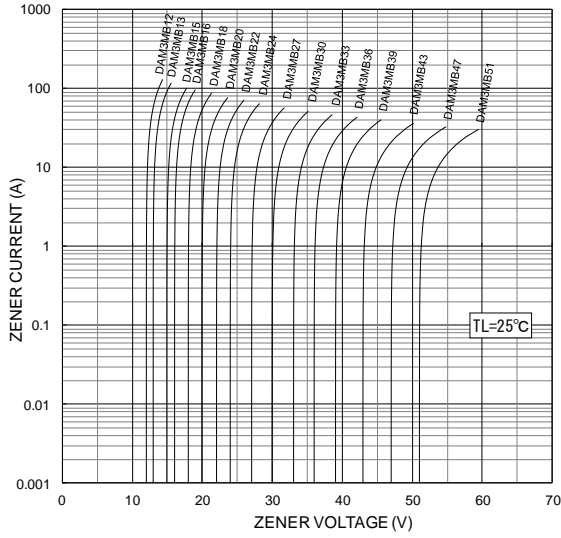
Items	Symbols	Units	Ratings
Non-Repetitive Peak Reverse One-Cycle Dissipation	P_{RSM}	W	1200 (10/1000 μ s waveform, $T_j=25^\circ\text{C}$ start)
			1800 (Rectangular pulse $t=0.1\text{ms}$ $T_j=25^\circ\text{C}$ start)
Surge(Non-Repetitive) Forward Current	I_{FSM}	A	150 (8.3ms single half sine-wave, $T_j=40^\circ\text{C}$ start)
Operating Junction Temperature	T_j	$^\circ\text{C}$	-65 ~ +185
Storage Temperature	T_{stg}	$^\circ\text{C}$	-65 ~ +185
Stand-off Voltage	V_{RM}	V	Refer to characteristics column

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

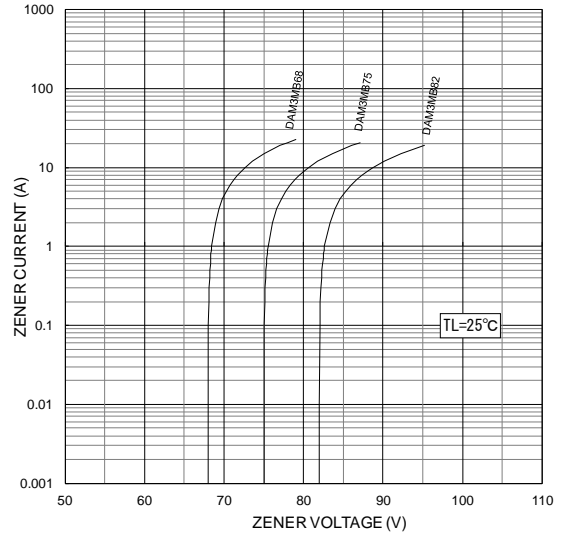
Type	Stand-off Voltage V_{RM} (V)	Characteristics				Maximum Peak Pulse Surge Current I_{PPM} (A)	Maximum Clamping Voltage at I_{PPM} V_C (V)
		Zener Voltage V_z (V)		Test Current I_z (mA)	Maximum Reverse Leakage at V_{RM} I_{RRM} (μA)		
		Minimum	Maximum				
DAM3MB12	9.7	11.4	12.7	1	5	69.4	17.3
DAM3MB13	10.5	12.4	14.1	1	5	63.2	19.0
DAM3MB15	12.1	13.5	15.6	1	1	54.5	22.0
DAM3MB16	12.9	15.3	17.1	1	1	51.1	23.5
DAM3MB18	14.5	16.8	19.1	1	1	45.3	26.5
DAM3MB20	16.2	18.8	21.2	1	1	41.2	29.1
DAM3MB22	17.8	20.8	23.3	1	1	37.6	31.9
DAM3MB24	19.4	22.7	25.6	1	1	34.6	34.7
DAM3MB27	21.8	25.1	28.9	1	1	30.7	39.1
DAM3MB30	24.3	28.0	32.0	1	1	27.6	43.5
DAM3MB33	26.8	31.0	35.0	1	1	25.2	47.7
DAM3MB36	29.1	33.4	38.6	1	1	23.1	52.0
DAM3MB39	31.6	36.1	41.9	1	1	21.3	56.4
DAM3MB43	34.8	39.8	46.2	1	1	19.4	61.9
DAM3MB47	38.0	43.3	50.7	1	1	17.7	67.7
DAM3MB51	41.3	46.9	55.1	1	1	16.2	74.0
DAM3MB68	55.1	61.2	74.8	1	1	12.2	98.0
DAM3MB75	60.7	67.5	82.5	1	1	11.2	107.6
DAM3MB82	66.4	73.8	90.2	1	1	10.2	117.9

DAM3MB

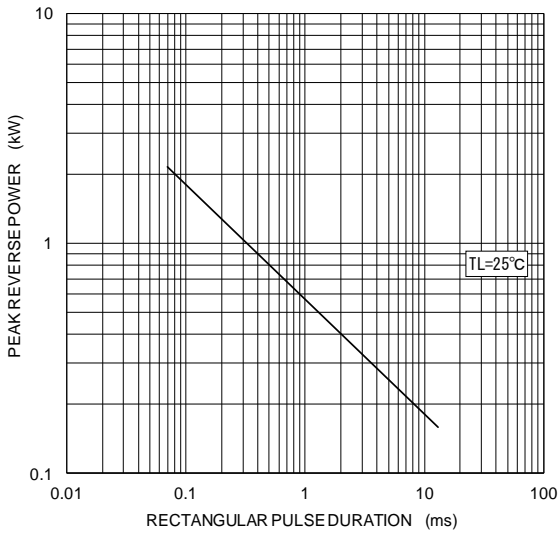
Typical zener characteristics (Vz : 12 – 51V)



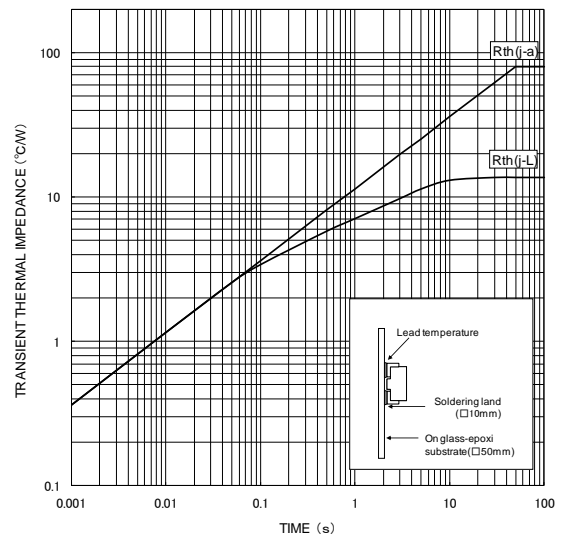
Typical zener characteristics (Vz : 68 – 82V)



Typical reverse power characteristics (Rectangular pulse non-repetitive)



Transient thermal impedance



Precautions for Safe Use and Notices

If semiconductor devices are handled in inappropriate manner, failures may result.
For this reason, be sure to read "Precaution for Use" before use.



This mark indicates an item about which caution is required.



CAUTION

This mark indicates a potentially hazardous situation which, if not avoided, may result in minor or moderate injury and damage to property.



CAUTION

- (1) Regardless of changes in external conditions during use "absolute maximum ratings" should never be exceed in designing electronic circuits that employ semiconductors. In the case of pulse use, furthermore, "safe operating area(SOA)" precautions should be observed.
- (2) Semiconductor devices may experience failures due to accident or unexpected surge voltages. Accordingly, adopt safe design features, such as redundancy or prevention of erroneous action, to avoid extensive damage in the event of a failure.
- (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 user's fail-safe precautions or other arrangement. Or consult Hitachi's sales department staff.

(If a semiconductor device fails, there may be cases in which the semiconductor device, wiring or wiring pattern will emit smoke or cause a fire or in which the semiconductor device will burst)

NOTICES

1. This Datasheet contains the specifications, characteristics(in figures and tables), dimensions and handling notes concerning power semiconductor products (hereinafter called "products") to aid in the selection of suitable products.
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<http://www.hitachi-power-semiconductor-device.co.jp/en/>