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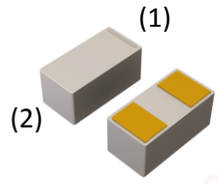
Transient Voltage Suppressor

RASMID Datasheet

V_{RWM}	5.0	V
P_{PP}	36	W
I_{PP}	2.0	A

●Outline

DSN0603-2 SOD-962 SMD0603B



●Features

High reliability
Bi-directional ESD protection
ESD protection level ±8kV (IEC61000-4-2 Contact)
Dimension tolerance±10um

●Inner Circuit



●Applications

Cellular handsets and accessories
Portable electronics
Data lines
Audio and Video equipment

●Packaging Specifications

Packing	Embossed Tape
Reel Size(mm)	180
Taping Width(mm)	8
Basic Ordering Unit(pcs)	15000
Taping Code	T15R
Marking	BN

●Absolute Maximum Ratings (Ta=25ºC)

Parameter	Symbol	Conditions		Min.	Max.	Unit
Peak pulse power	P_{PP}	tp=8/20μs		-	36	W
Maximum peak pulse current	I_{pp}	tp=8/20μs		-	2.0	A
Electrostatic discharge voltage*	V_{ESD}	IEC61000-4-2	Air discharge	-	±15	kV
			Contact	-	±11	kV
Junction temperature	T_j	-		-	150	ºC
Storage temperature	T_{stg}	-		-55	150	ºC
Operation temperature	T_{opr}	-		-55	150	ºC
Power dissipation	P_D	-		-	100	mW

* IEC61000-4-2 C=150pF R=330Ω

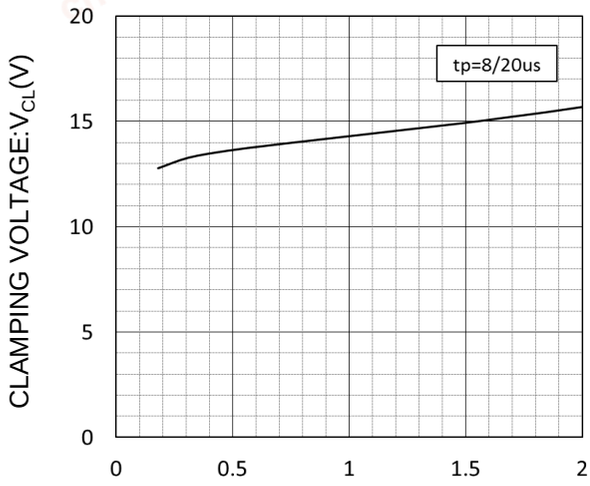
●Characteristics (Ta=25ºC unless otherwise stated)

Parameter	Symbol	Conditions	Min.	Typ.	Max.	Unit
Reverse standoff voltage	V_{RWM}	-	-	-	5.0	V
Reverse breakdown voltage	V_{BR}	I_R=1mA	6.0	8.5	10.0	V
Reverse leakage current	I_R	V_R=5V	-	1	70	nA
Clamping voltage	V_{CL}	Ipp=2.0A, tp=8/20us	-	16.0	18.0	V
Capacitance between terminals	C_t	V_R=0V , f=1MHz	-	0.50	1.0	pF

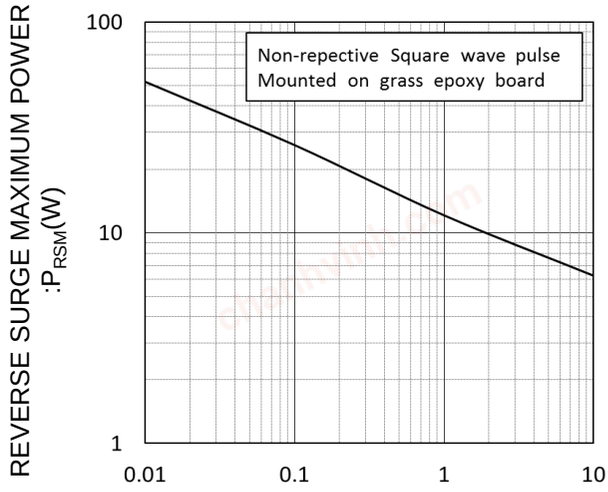
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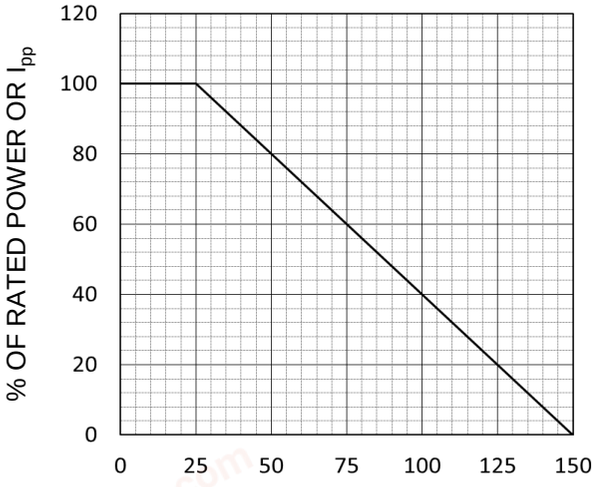
●Characteristic Curves



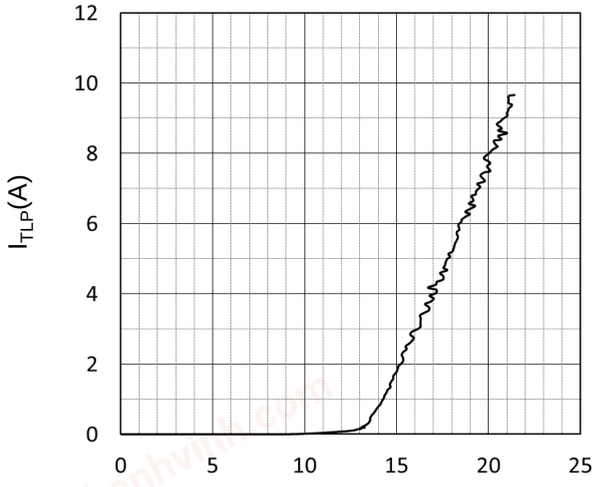
CLAMPING VOLTAGE vs PEAK PULSE CURRENT



P_{RSM}-t CHARACTERISTICS



POWER DERATING CURVE

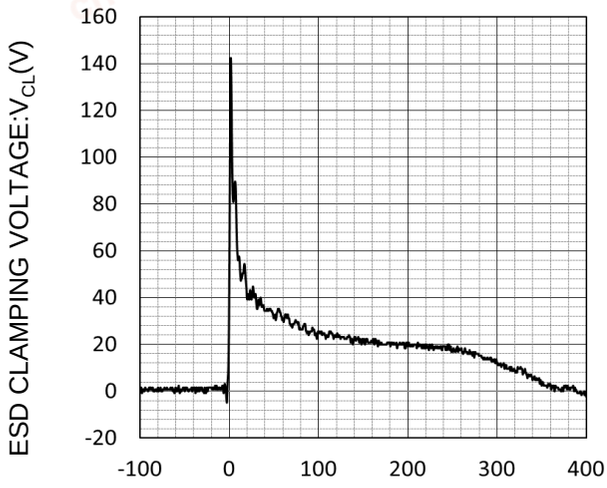


TRANSMISSION LINE PULSE

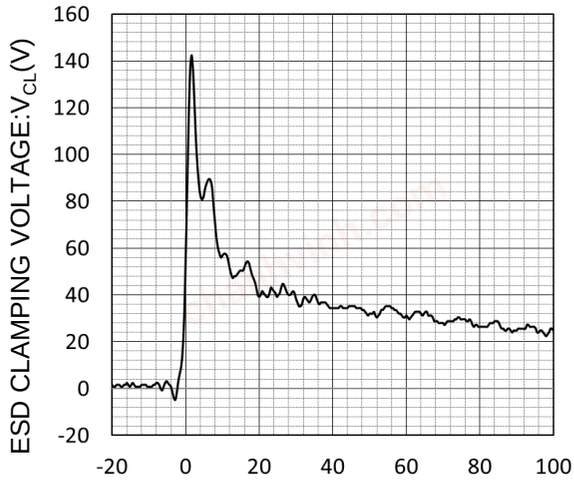
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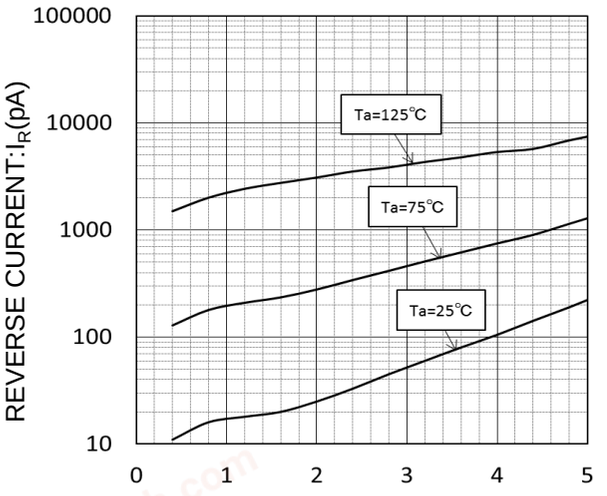
●Characteristic Curves



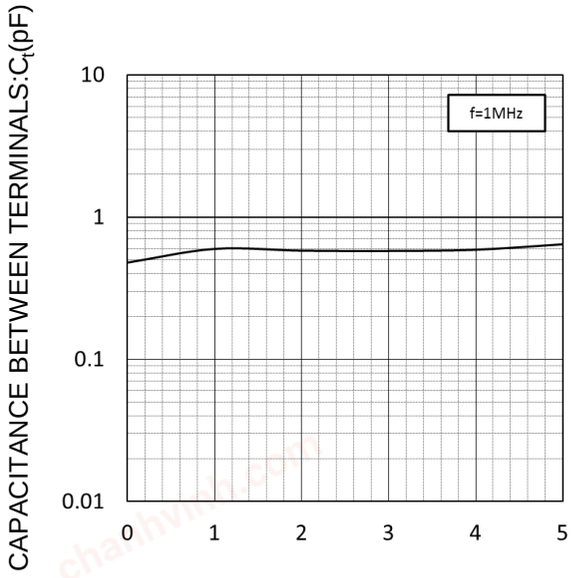
TIME(ns)
ESD CLAMPING VOLTAGE
(IEC61000-4-2 +8kV CONTACT)



TIME(ns)
ESD CLAMPING VOLTAGE
(IEC61000-4-2 +8kV CONTACT)



REVERSE VOLTAGE:VR(V)
V_R-I_R CHARACTERISTICS

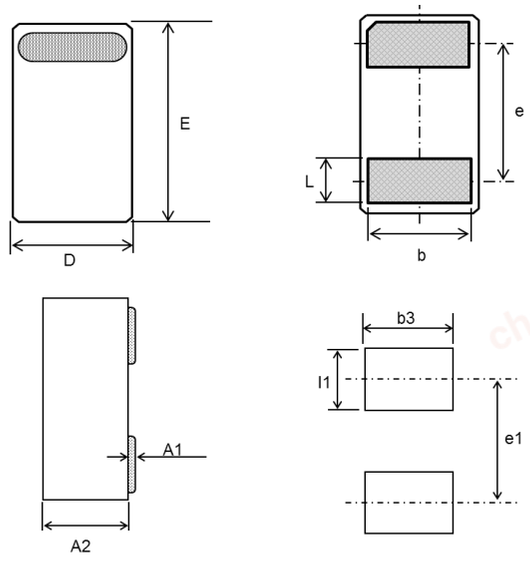


REVERSE VOLTAGE:VR(V)
V_R-C_t CHARACTERISTICS

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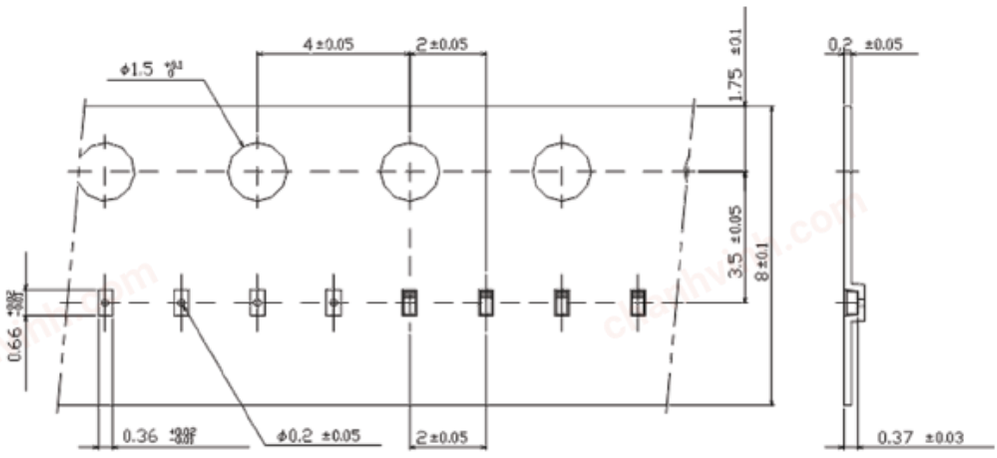
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●Dimensions (DSN0603-2 SOD-962 SMD0603B)



DIM	Milimeters			Inches		
	Min.	Average	Max.	Min.	Average	Max.
A1	0.000	-	0.010	0.000	-	0.000
A2	0.270	0.280	0.290	0.011	0.011	0.011
b	0.230	0.240	0.250	0.009	0.009	0.010
D	0.290	0.300	0.310	0.011	0.012	0.012
E	0.590	0.600	0.610	0.023	0.024	0.024
L	0.130	0.140	0.150	0.005	0.006	0.006
e	0.390	0.400	0.410	0.015	0.016	0.016
l1	-	0.230	-	-	0.009	-
b3	-	0.310	-	-	0.012	-
e1	-	0.380	-	-	0.015	-

●Taping (Unit:mm)



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(Note1) Medical Equipment Classification of the Specific Applications

JAPAN	USA	EU	CHINA
CLASSⅢ	CLASSⅢ	CLASSⅡb	CLASSⅢ
CLASSⅣ		CLASSⅢ	

2. ROHM designs and manufactures its Products subject to strict quality control system. However, semiconductor products can fail or malfunction at a certain rate. Please be sure to implement, at your own responsibilities, adequate safety measures including but not limited to fail-safe design against the physical injury, damage to any property, which a failure or malfunction of our Products may cause. The following are examples of safety measures:
   [a] Installation of protection circuits or other protective devices to improve system safety
   [b] Installation of redundant circuits to reduce the impact of single or multiple circuit failure

3. Our Products are designed and manufactured for use under standard conditions and not under any special or extraordinary environments or conditions, as exemplified below. Accordingly, ROHM shall not be in any way responsible or liable for any damages, expenses or losses arising from the use of any ROHM's Products under any special or extraordinary environments or conditions. If you intend to use our Products under any special or extraordinary environments or conditions (as exemplified below), your independent verification and confirmation of product performance, reliability, etc, prior to use, must be necessary:
   [a] Use of our Products in any types of liquid, including water, oils, chemicals, and organic solvents
   [b] Use of our Products outdoors or in places where the Products are exposed to direct sunlight or dust
   [c] Use of our Products in places where the Products are exposed to sea wind or corrosive gases, including Cl_2, H_2S, NH_3, SO_2, and NO_2
   [d] Use of our Products in places where the Products are exposed to static electricity or electromagnetic waves
   [e] Use of our Products in proximity to heat-producing components, plastic cords, or other flammable items
   [f] Sealing or coating our Products with resin or other coating materials
   [g] Use of our Products without cleaning residue of flux (even if you use no-clean type fluxes, cleaning residue of flux is recommended); or Washing our Products by using water or water-soluble cleaning agents for cleaning residue after soldering
   [h] Use of the Products in places subject to dew condensation

4. The Products are not subject to radiation-proof design.

5. Please verify and confirm characteristics of the final or mounted products in using the Products.

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