Schottky barrier diode RB550VA-30

Applications

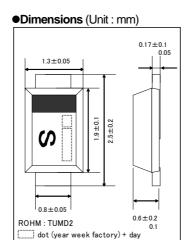
General rectification

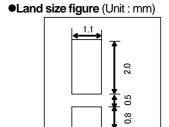
● Features

- 1) Small mold type (TUMD2)
- 2) Low VF, Low IR
- 3) High reliability

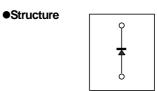
●Structure

Silicon epitaxial planar

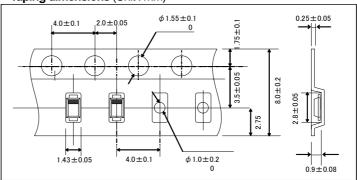




TUMD2



● Taping dimensions (Unit: mm)



● Absolute maximum ratings (Ta=25°C)

Parameter	Symbol	Symbol Limits	
Reverse voltage (repetitive peak)	V_{RM}	30	V
Reverse voltage (DC)	V_R	30	V
Average rectified forward current	lo	1	Α
Forward current surge peak	I _{FSM}	3	Α
Junction temperature	Tj	150	°C
Storage temperature	Tstg	-40 to +150	°C

●Electrical characteristic (Ta=25°C)

Parameter	Symbol	Min.	Тур.	Max.	Unit	Conditions
Forward voltage	V_F1	-	0.45	0.49	V	I _F =700mA
	V _F 2	-	0.48	0.52	V	I _F =1A
Reverse current	I_R	-	1	30	μA	V _R =10V



0

10 TIME:t(ms)

IFSM-t CHARACTERISTICS

Electrical characteristic curves 100000 1000 Ta=150°C 10000 CAPACITANCE BETWEEN TERMINALS:Ct(pF) 0 0 FORWARD CURRENT:IF(A) REVERSE CURRENT:IR(uA) 1000 0.1 Ta=25°C 100 10 0.01 0.1 0.01 0.001 0 10 15 25 400 500 600 100 200 300 0 REVERSE VOLTAGE: VR(V) VR-IR CHARACTERISTICS FORWARD VOLTAGE: VF(mV) REVERSE VOLTAGE:VR(V) VF-IF CHARACTERISTICS VR-Ct CHARACTERISTICS 200 Ta=25°C IF=0.7A Ta=25°C VR=30V 190 FORWARD VOLTAGE:VF(mV) 25 f=1MHz 480 n=30pcs REVERSE CURRENT:IR(nA) n=30pc VR=0V n=10pcs 20 470 15 460 10 AVE:3.141uA 450 5 AVE:149.9pF 110 0 440 100 VF DISPERSION MAP IR DISPERSION MAP Ct DISPERSION MAP Ta=25°C IF=0.5A IR=1A RESERVE RECOVERY TIME:trr(ns) PEAK SURGE FORWARD CURRENT:IFSM(A) PEAK SURGE FORWARD CURRENT:IFSM(A) 25 15 20 20 n=10pcs 15 15 10 10 5 AVE:8.3ns 5 NUMBER OF CYCLES IFSM-CYCLE CHARACTERISTICS trr DISPERSION MAP IFSM DISRESION MAP 1000 TRANSIENT THAERMAL IMPEDANCE:Rth (°C/W) IF=0.2A PEAK SURGE FORWARD CURRENT:IFSM(A) 25 0.8 FORWARD POWER DISSIPATION:Pf(W) 0 90 20 15 100 10 5

 $^{0.1}\text{TIME:t(s)}$

Rth-t CHARACTERISTICS

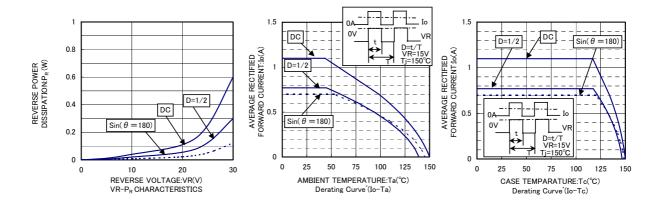
10

0.001

0

0.5 1 AVERAGE RECTIFIED FORWARD CURRENT:Io(A)

Io-Pf CHARACTERISTICS



Notes

- No technical content pages of this document may be reproduced in any form or transmitted by any
 means without prior permission of ROHM CO.,LTD.
- The contents described herein are subject to change without notice. The specifications for the product described in this document are for reference only. Upon actual use, therefore, please request that specifications to be separately delivered.
- Application circuit diagrams and circuit constants contained herein are shown as examples of standard
 use and operation. Please pay careful attention to the peripheral conditions when designing circuits
 and deciding upon circuit constants in the set.
- Any data, including, but not limited to application circuit diagrams information, described herein are intended only as illustrations of such devices and not as the specifications for such devices. ROHM CO.,LTD. disclaims any warranty that any use of such devices shall be free from infringement of any third party's intellectual property rights or other proprietary rights, and further, assumes no liability of whatsoever nature in the event of any such infringement, or arising from or connected with or related to the use of such devices.
- Upon the sale of any such devices, other than for buyer's right to use such devices itself, resell or
 otherwise dispose of the same, no express or implied right or license to practice or commercially
 exploit any intellectual property rights or other proprietary rights owned or controlled by
- ROHM CO., LTD. is granted to any such buyer.
- Products listed in this document are no antiradiation design.

The products listed in this document are designed to be used with ordinary electronic equipment or devices (such as audio visual equipment, office-automation equipment, communications devices, electrical appliances and electronic toys).

Should you intend to use these products with equipment or devices which require an extremely high level of reliability and the malfunction of with would directly endanger human life (such as medical instruments, transportation equipment, aerospace machinery, nuclear-reactor controllers, fuel controllers and other safety devices), please be sure to consult with our sales representative in advance.

About Export Control Order in Japan

Products described herein are the objects of controlled goods in Annex 1 (Item 16) of Export Trade Control Order in Japan.

In case of export from Japan, please confirm if it applies to "objective" criteria or an "informed" (by MITI clause) on the basis of "catch all controls for Non-Proliferation of Weapons of Mass Destruction.

