# Schottky barrier diode RB400VA-50

### Applications

General rectification

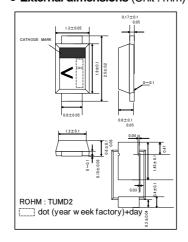
#### ● Features

- 1) Small mold type. (TUMD2)
- 2) Low  $I_F$ , Low  $I_R$ .
- 3) High reliability.

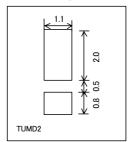
#### Construction

Silicon epitaxial planar

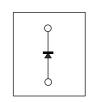
# • External dimensions (Unit : mm)



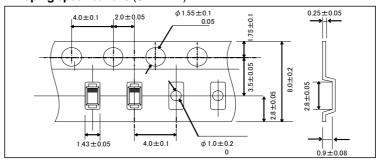
### • Land size figure (Unit : mm)



Structure



# • Taping specifications (Unit : mm)



# ● Absolute maximum ratings (Ta=25°C)

Parameter	Symbol	Limits	Unit
Reverse voltage (repetitive peak)	$V_{RM}$	50	V
Reverse voltage (DC)	$V_R$	40	V
Average rectified forward current	lo	0.5	А
Forward current surge peak (60Hz-1cyc)	I <sub>FSM</sub>	3	Α
Junction temperature	Tj	125	°C
Storage temperature	Tstg	-40 to +125	°C

# ●Electrical characteristics (Ta=25°C)

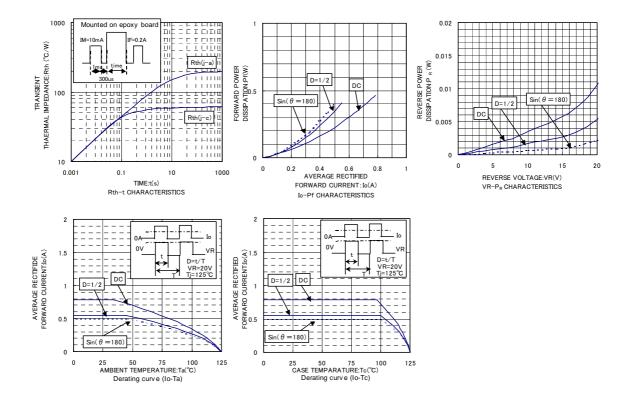
Parameter	Symbol	Min.	Тур.	Max.	Unit	Conditions
Forward voltage	V <sub>F</sub> 1	-	-	0.55	V	I <sub>F</sub> =500mA
Reverse current	I <sub>R</sub> 1	-	-	30	μΑ	V <sub>R</sub> =10V
	I <sub>R</sub> 2	-	-	50	μΑ	V <sub>R</sub> =30V
Capacitance between terminal	Ct1	-	125	-	pF	V <sub>R</sub> =0V , f=1MHz
	Ct2	-	20	-	pF	V <sub>R</sub> =10V , f=1MHz



#### ●Electrical characteristic curves (Ta=25°C) 1000 CAP ACITANCE BETWEEN TERMINAL S.Ct.(p) 100 FORWARD CURRENT:IF(mA) REVERSE CURRENTIR(uA) 100 10 0.1 0.1 0.01 10 15 20 25 30 0 200 400 600 10 15 20 REVERSE VOLTAGE:VR(V) FORWARD VOLTAGE: VF(mV) REVERSE VOLTAGE: VR(V) VF-IF CHARACTERISTICS VR-IR CHARACTERISTICS VR-Ct CHARACTERISTICS 520 Ta=25°C Ta=25°C VR=35V 510 FORWARD VOLTAGE:VF(mV) REVERSE CURRENT:IR(uA) 500 490 480 **EBB.** VF DISPERSION MAP IR DISPERSION MAP IR DISPERSION MAP 200 Ta=25°C f=1MHz 190 Ta=25°C f=1MHz CAPACITANCE BETWEEN TERMINAL SCL(pF) 120 130 130 VR=0V 23 VR=10V FORWARD CURRENT:IFSM(A) 01 02 CAPACITANCE BETWEEN 22 TERMINALS:Ct(pF) 21 20 18 AVE:20.66pF 100 Ct DISPERSION MAP Ct DISPERSION MAP IFSM DISRESION MAP 20 Ta=25°C IF=0.5A RESERVE RECOVERY TIME:trn(ns) IR=1A FORWARD CURRENT:IFSM(A) PEAK SURGE FORWARD CURRENT:IFSM(A) 15 Irr=0.25\*IF PEAK SURGE 10 100 NUMBER OF CYCLES trr DISPERSION MAP

IFSM-CYCLE CHARACTERISTICS

IFSM-t CHARACTERISTICS



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