# Schottky barrier diode RB496KA

#### Applications

Low current rectification

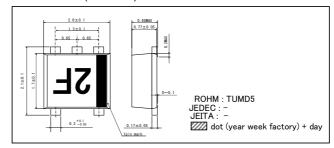
#### ● Features

- 1) Small mold type (TUMD5)
- 2) Low VF
- 3) High reliability

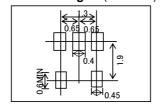
#### **●Structure**

Silicon epitaxial planer

#### ●Dimensions (Unit: mm)



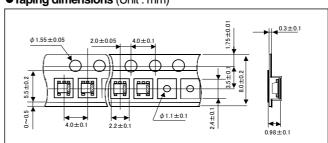
#### ●Land size figure (Unit: mm)



#### ●Structure



## ● Taping dimensions (Unit: mm)



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

Parameter	Symbol	Limits	Unit
Reverse voltage (DC)	$V_R$	20	V
Average rectified forward current (*1)	lo	1	Α
Forward current surge peak (60Hz·1cyc) (*1)	I <sub>FSM</sub>	5	Α
Junction temperature	Tj	125	°C
Storage temperature	Tstg	-40 to +125	°C

(\*1) Rating of per diode

## ●Electrical characteristic (Ta=25°C)

Parameter	Symbol	Min.	Тур.	Max.	Unit	Conditions
Forward voltage	V <sub>F</sub> 1	-		0.40	V	I <sub>F</sub> =0.7A
	V <sub>F</sub> 2	-		0.43	V	I <sub>F</sub> =1A
Reverse current	I <sub>R</sub>	-	-	800	μA	V <sub>R</sub> =10V

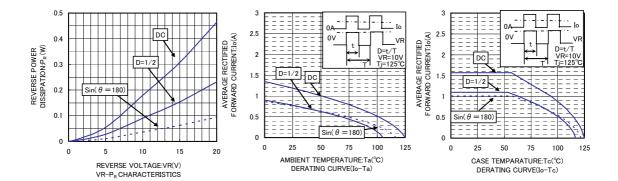


## **Diodes**

#### Electrical characteristic curves f=1MHz FORWARD CURRENT:IF(mA) CAPACITANCE BETWEEN TERMINALS:Ct(pF) 100 10 0.1 0 30 0 0 FORWARD VOLTAGE: VF(mV) VF-IF CHARACTERISTICS REVERSE VOLTAGE: VR(V) VR-IR CHARACTERISTICS REVERSE VOLTAGE:VR(V) VR-Ct CHARACTERISTICS 1000 Ta=25°C VR=10V Ta=25°C Ta=25°C 900 VF=1A FORWARD VOLTAGE:VF(mV) VF=0.7A 360 800 n=30pcs n=30pcs REVERSE CURRENT:IR(uA) 700 600 350 390 500 400 340 300 200 330 100 0 320 VF DISPERSION MAP IR DISPERSION MAP 200 Ta=25°C PEAK SURGE FORWARD CURRENT:IFSM(A) FORWARD CURRENT:IFSM(A) CAPACITANCE BETWEEN 100 1 100 VR=0V PEAK SURGE 10 10 110 0 0 100 100 NUMBER OF CYCLES IFSM DISRESION MAP Ct DISPERSION MAP IFSM-CYCLE CHARACTERISTICS THAERMAL IMPEDANCE: Rth (°C/W) 25 8.0 PEAK SURGE FORWARD CURRENT:IFSM(A) 1000 0.7 FORWARD POWER DISSIPATION:Pf(W) 20 TRANSIENT 0.6 0.5 100 0.4 10 10 0.2 0.1 0 0 0 1.5 AVERAGE RECTIFIED FORWARD CURRENT: Io(A) Io-Pf CHARACTERISTICS TIME:t(ms) IFSM-t CHARACTERISTICS Rth-t CHARACTERISTICS



# Diodes



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ROHM CO., LTD. 21 Saiin Mizosaki-cho, Ukyo-ku, Kyoto 615-8585, Japan

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TEL:+81-75-311-2121

