# Schottky barrier diode RB496KA

# Applications

Low current rectification

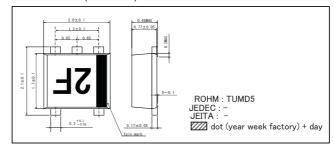
### Features

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

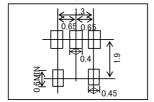
#### Structure

Silicon epitaxial planer

### ●Dimensions (Unit: mm)



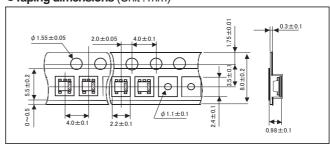
### ●Land size figure (Unit : mm)



### 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

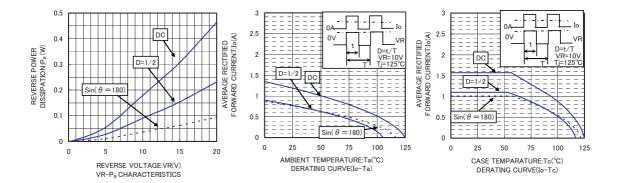
<sup>(\*1)</sup> Rating of per diode

# ●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



#### Electrical characteristic curves f=1MHz CAPACITANCE BETWEEN TERMINALS:Ct(pF) 0 0 FORWARD CURRENT:IF(mA) 100 10 10 0.1 0 30 0 0 REVERSE VOLTAGE:VR(V) VR-Ct CHARACTERISTICS FORWARD VOLTAGE: VF(mV) VF-IF CHARACTERISTICS REVERSE VOLTAGE: VR(V) VR-IR 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 n=30pcs REVERSE CURRENT:IR(uA) 700 600 350 390 500 400 340 300 AVE:382.9mV 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) f=1MHz VR=0V 180 CAPACITANCE BETWEEN 170 160 150 140 140 130 PEAK SURGE 10 10 120 110 0 0 100 100 NUMBER OF CYCLES IFSM DISRESION MAP Ct DISPERSION MAP IFSM-CYCLE CHARACTERISTICS 0.9 TRANSIENT THAERMAL IMPEDANCE:Rth (°C/W) 0.8 PEAK SURGE FORWARD CURRENT:IFSM(A) 1000 0.7 FORWARD POWER DISSIPATION:Pf(W) 20 0.6 0.5 100 0.4 10 10 0.2 0.1 0 0 0.1 1 TIME:t(s) 0 1.5 TIME:t(ms) IFSM-t CHARACTERISTICS AVERAGE RECTIFIED FORWARD CURRENT: Io(A) Io-Pf CHARACTERISTICS Rth-t CHARACTERISTICS



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