# Schottky barrier diode RB751V-40

# Applications

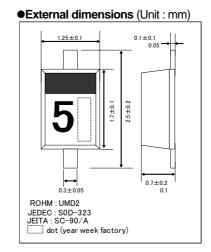
Low current rectification

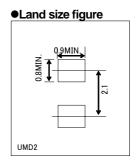
# ● Features

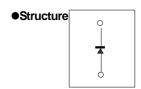
- 1) Ultra small mold type. (UMD2)
- 2) Low V<sub>F</sub>
- 3) High reliability

#### Construction

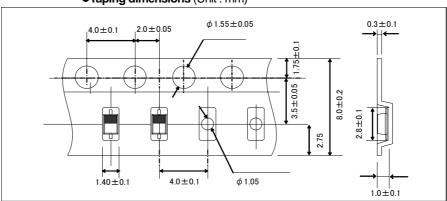
Silicon epitaxial planar







# ●Taping dimensions (Unit: mm)



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

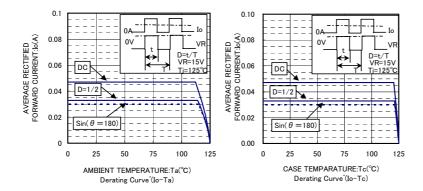
Parameter	Symbol	Limits	Unit
Reverse voltage (repetitive peak)	$V_{RM}$	40	V
Reverse voltage (DC)	$V_R$	30	V
Average rectified forward current	lo	30	m A
Forward current surge peak (60Hz-1cyc)	I <sub>FSM</sub>	200	m A
Junction temperature	Tj	125	°C
Storage temperature	Tstg	-40 to +125	°C

# ●Electrical characteristic (Ta=25°C)

Parameter	Symbol	Min.	Тур.	Max.	Unit	Conditions
Forward voltage	V <sub>F</sub>	-	-	0.37	V	I <sub>F</sub> =1 m A
Reverse current	I <sub>R</sub>	-	-	0.5	μA	V <sub>R</sub> =30V
Capacitance between terminal	Ct	-	2	-	pF	V <sub>P</sub> =1V, f=1MHz

Rev.B

#### Electrical characteristic curves 1000 100 Ta=125°C 100 FORWARD CURRENT:IF(mA) REVERSE CURRENT:IR(uA) CAPACITANCE BETWEEN TERMINALS:Ct(pF) 10 10 0.1 0.001 0.1 FORWARD VOLTAGE: VF(mV) VF-IF CHARACTERISTICS REVERSE VOLTAGE: VR(V) REVERSE VOLTAGE:VR(V) VR-IR CHARACTERISTICS VF分布 1000 300 900 Ta=25°C Ta=25°C Ta=25°C FORWARD VOLTAGE:VF(mV) 800 REVERSE CURRENT:IR(nA) CAPACITANCE BETWEEN n=30pcs n=30pc 700 TERMINALS:Ct(pF) VR=1V 600 280 500 400 270 300 260 200 100 250 0 VF DIPERSION MAP Ct DISPERSION MAP IR DISPERSION MAP 20 10 PEAK SURGE FORWARD CURRENT:IFSM(A) PEAK SURGE FORWARD CURRENT:IFSM(A) FORWARD CURRENT:IFSM(A) 15 1cvc PEAK SURGE AVE:7.30A 0 0 100 NUMBER OF CYCLES TIME:t(ms) IFSM DISPERSION MAP IFSM-CYCLE CHARACTERISTICS IFSM-t CHARACTERISTICS 0.04 0.003 1000 TRANSIENT THAERMAL IMPEDANCE:Rth (°C/W) 0.03 FORWARD POWER DISSIPATION:Pf(W) REVERSE POWER DISSIPATION:P<sub>R</sub> (W) 0.002 100 0.02 DC 0.001 10 0.01 0.00 0 0.00 0.01 0.02 0.03 0.04 0.05 0.001 0 TIME:t(s) AVERAGE RECTIFIED REVERSE VOLTAGE:VR(V) VR-P<sub>R</sub> CHARACTERISTICS Rth-t CHARACTERISTICS FORWARD CURRENT Io(A) Io-Pf CHARACTERISTICS



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