Schottky barrier diode RB751V-40

Applications

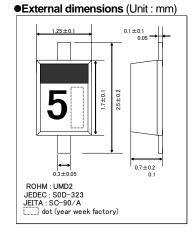
Low current rectification

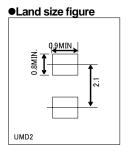
● Features

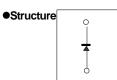
- 1) Ultra small mold type. (UMD2)
- 2) Low VF
- 3) High reliability

Construction

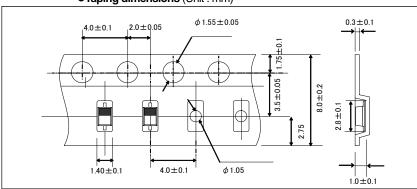
Silicon epitaxial planar







●Taping dimensions (Unit : mm)



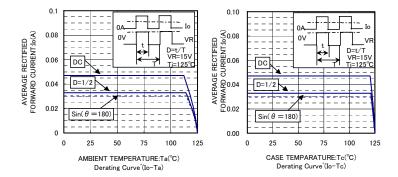
●Absolute maximum ratings (Ta=25°C)

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 _{FSM}	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_F	-	-	0.37	V	I _F =1mA
Reverse current	I _R	-	-	0.5	μA	V _R =30V
Capacitance between terminal	Ct	-	2	-	pF	V _R =1V , f=1MHz

•Electrical characteristic curves 1000 Ta=125°C Ta=125°C f=1MHz FORWARD CURRENT:IF(mA) REVERSE CURRENT:IR(uA) CAPACITANCE BETWEEN TERMINALS:Ct(pF) 10 0.1 0.001 0.1 0 FORWARD VOLTAGE: VF(mV) VF-IF CHARACTERISTICS REVERSE VOLTAGE: VR(V) VR-IR CHARACTERISTICS REVERSE VOLTAGE:VR(V) VF分布 1000 300 900 Ta=25°C Ta=25°C IF=1mA Ta=25°C FORWARD VOLTAGE:VF(mV) 800 REVERSE CURRENT:IR(nA) 290 BETWEEN f=1MHz VR=1V n=30pcs n=30pcs 700 n=10pcs 600 280 500 400 270 300 AVE:1.97pF 260 200 AVE:267.4mV 100 250 0 VF DIPERSION MAP IR DISPERSION MAP Ct DISPERSION MAP 10 PEAK SURGE FORWARD CURRENT:IFSM(A) PEAK SURGE FORWARD CURRENT:IFSM(A) PEAK SURGE FORWARD CURRENT:IFSM(A) 6 5 4 3 AVE:7.30A 2 0 0 100 NUMBER OF CYCLES TIME:t(ms) IFSM DISPERSION MAP IFSM-CYCLE CHARACTERISTICS IFSM-t CHARACTERISTICS 0.04 0.003 TRANSIENT THAERMAL IMPEDANCE:Rth (°C/W) D=1/2 FORWARD POWER DISSIPATION:Pf(W) REVERSE POWER DISSIPATION:P_R (W) 0.002 100 0.02 DC 10 0.01 0.00 0.00 0.01 0.02 0.03 0.04 0.05 0.001 TIME:t(s) AVERAGE RECTIFIED REVERSE VOLTAGE:VR(V) VR-P_R CHARACTERISTICS Rth-t CHARACTERISTICS FORWARD CURRENT Io(A) Io-Pf CHARACTERISTICS



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