Shottky barrier diode RB501V-40

Application

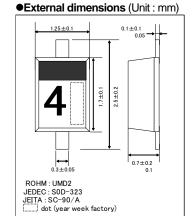
Low current rectification

● Features

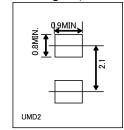
- 1) Ultra Small mold type. (UMD2)
- 2) Low IR
- 3) High reliability.

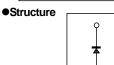
●Condtruction

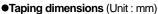
Silicon epitaxial planer

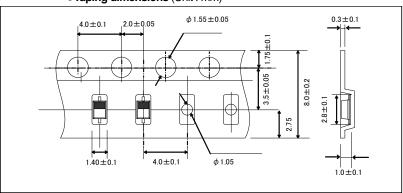


●Lead size figure (Unit : mm)









● Absolute maximum ratings (Ta=25°C)

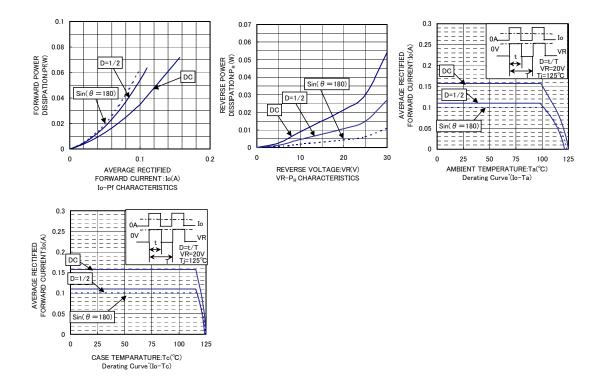
- 7 115-0-11-11-1 1-11-1-1-1-1-1-1-1-1-1-1-1-1-								
Parameter	Symbol	Limits	Unit					
Reverse voltage (repetitive peak)	V_{RM}	45	V					
Reverse voltage (DC)	V_R	40	V					
Average rectified forward current	lo	100	mA					
Forward current surge peak (60Hz · 1cyc)	I _{FSM}	1	Α					
Junction temperature	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 _F 1	-	-	0.55	V	I _F =100mA
	V _F 2	-	-	0.34	V	I _F =10mA
Reverse current	I _R	-	-	30	μΑ	V _R =10V
Capacitance between terminals	Ct	-	6.0	-	pF	V _R =10V , f=1MHz

●Electrical characteristic curves (Ta=25°C) FORWARD CURRENT:IF(mA) 1000 REVERSE CURRENT:IR(uA) CAPACITANCE BETWEEN TERMINALS:Ct(pF) 10 Ta=75°C 100 0.1 0.01 500 300 0 20 FORWARD VOLTAGE: VF(mV) VF-IF CHARACTERISTICS REVERSE VOLTAGE: VR(V) VR-IR CHARACTERISTICS REVERSE VOLTAGE:VR(V) VR-Ct CHARACTERISTICS 470 Ta=25°C IF=100mA Ta=25°C IF=10mA Ta=25°C VR=10V FORWARD VOLTAGE:VF(mV) 25 FORWARD VOLTAGE:VF(mV) n=30pcs REVERSE CURRENT:IR(uA) 300 n=30pcs 20 450 290 280 440 10 430 270 AVE:2.548uA AVE:281.5mV AVE:439.5mV 420 260 IR DISPERSION MAP VF DISPERSION MAP VF DISPERSION MAP Ta=25°C RESERVE RECOVERY TIME:trr(ns) PEAK SURGE FORWARD CURRENT:IFSM(A) IF=0.5A IR=1A 16 f=1MHz IR=10V CAPACITANCE BETWEEN TERMINALS:Ct(pF) lrr=0.25*II n=10pcs 12 AVE:5.81pF AVE:5.50A AVE:6.20ns Ct DISPERSION MAP trr DISPERSION MAP IFSM DISRESION MAP Rth(j-a) TRANSIENT IMPEDANCE:Rth (°C/W) PEAK SURGE FORWARD CURRENT:IFSM(A) PEAK SURGE FORWARD CURRENT:IFSM(A) 10 100 10 THAERMAL 100 0.001 NUMBER OF CYCLES IFSM-CYCLE CHARACTERISTICS TIME:t(ms) TIME:t(s) IFSM-t CHARACTERISTICS Rth-t CHARACTERISTICS

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