Fast recovery Diode

RF071M2S

Applications

General rectification

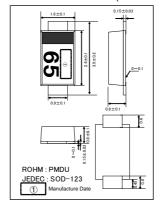
Features

- 1) Small power mold type. (PMDU)
- 2) Ultra low V_F
- 3) Very fast recovery
- 4) Low switching loss

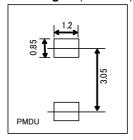
Construction

Silicon epitaxial planar

• External dimensions (Unit : mm)



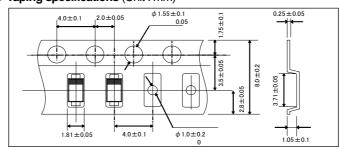
• Land size figure (Unit : mm)



●Structure



• Taping specifications (Unit : mm)



● Absolute maximum ratings (Ta=25°C)

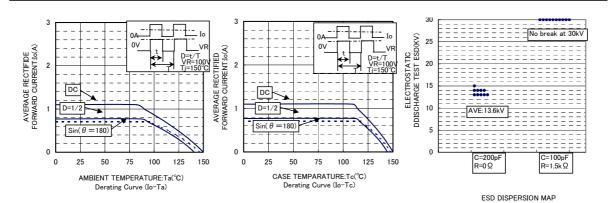
Parameter	Symbol	Limits	Unit	
Reverse voltage (repetitive peak)	V_{RM}	200	V	
Reverse voltage (DC)	V_R	200	V	
Rverse current (DC)	I _F	1	Α	
Average rectified forward current (*1)	lo	0.7	Α	
Forward current surge peak (60Hz • 1cyc)	I _{FSM}	15	Α	
Junction temperature	Tj	150	°C	
Storate temperature	Tstg	-55 to +150	°C	

^(*1)Mounted on epoxy board. 180°Half sine wave

●Electrical characteristics (Ta=25°C)

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Parameter	Symbol	Min.	Тур.	Max.	Unit	Conditions
Forward voltage	V_{F}	-	0.79	0.85	V	I _F =0.7A
Reverse current	I _R	-	0.01	10	μΑ	V _R =200V
Reverse recovery time	trr	-	12	25	ns	I _F =0.5A,I _R =1A,Irr=0.25*I _R

●Electrical characteristic curves (Ta=25°C) 10000 FORWARD CURRENT:IF(A) 100 100 CAPACITANCE BETWEEN TERMINALS:Ct(pF) REVERSE CURRENT:IR(nA) 100 10 0.1 0.01 0.001 5 10 15 20 REVERSE VOLTAGE:VR(V) VR-Ct CHARACTERISTICS 0 200 300 400 500 600 700 800 900 FORWARD VOLTAGE:VF(mV) 0 100 0 REVERSE VOLTAGE: VR(V) VR-IR CHARACTERISTICS VF-IF CHARACTERISTICS 820 Ta=25°C Ta=25°C IF=0.7A 90 90 VR=200\ FORWARD VOLTAGE:VF(mV) REVERSE CURRENT:IR(nA) 810 80 80 CAPACITANCE BETWEEN n=30pcs VR=0V 70 800 60 50 790 40 30 AVE:37.0pF AVE:795.7mV 20 20 780 10 10 0 770 VF DISPERSION MAP IR DISPERSION MAP Ct DISPERSION MAP 1000 30 TIME:trr(ns) Ta=25℃ IF=0.5A PEAK SURGE FORWARD CURRENT:IFSM(A) PEAK SURGE FORWARD CURRENT:IFSM(A) 25 150 IR=1A r=0.25*IF 20 100 =10pcs RESERVE RECOVERY 100 15 10 10 AVE:12.2ns 50 AVE:63.0A 5 0 10 trr DISPERSION MAP IFSM DISRESION MAP NUMBER OF CYCLES IFSM-CYCLE CHARACTERISTICS 1000 1000 TRANSIENT AAL IMPEDANCE:Rth (°C./W) PEAK SURGE FORWARD CURRENT:IFSM(A) Rth(j-a) FORWARD POWER DISSIPATION: Pf(W) 0.6 =180) 100 0.4 THAERMAL 0.2 10 0 0.001 10 TIME:t(ms) 0 1.5 0.5 . TIME:t(s) AVERAGE RECTIFIED FORWARD CURRENT: Io(A) Io-Pf CHARACTERISTICS IFSM-t CHARACTERISTICS Rth-t CHARACTERISTICS



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