Rectifier diode

RR255M-400

Applications

General rectification

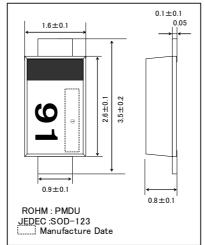
● Features

- 1) Small power mold type. (PMDU)
- 2) High reliability

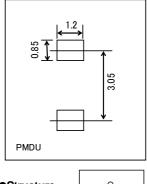
●Construction

Silicon epitaxial planar

●Dimensions (Unit : mm)



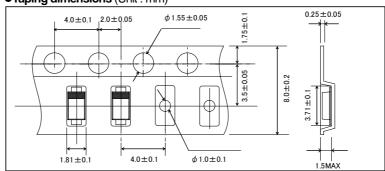
●Land size figure (Unit : mm)



●Structure



● Taping dimensions (Unit: mm)



● Absolute maximum ratings (Ta=25°C)

Parameter	Symbol	Limits	Unit
Absolute peak reverse voltage	V_R	400	V
Average rectified forward current(*1)	lo	0.7	Α
Forward current surge peak (1pilse/4S t=500us)	I _{FRM}	150	Α
Junction temperature	Tj	150	°C
Storage temperature	Tstg	-55 to +150	°C

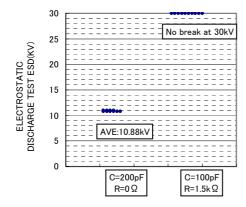
^(*1)Mounting on epoxy board. 180°Half sine wave

●Electrical characteristic (Ta=25°C)

Parameter	Symbol	Min.	Тур.	Max.	Unit	Conditions
Forward voltage	V_{F}	-	-	0.98	V	I _F =0.7A
Reverse current	I _R	-	-	1	uA	V _R =400V

Electrical characteristic curves 10000 Ta=150°C Ta=125°C REVERSE CURRENT:IR(nA) 1000 FORWARD CURRENT:IF(A) CAPACITANCE BETWEEN TERMINALS:Ct(pF) 10 10 0.1 0.1 0 300 200 300 400 500 600 700 80 FORWARD VOLTAGE:VF(mV) 10 15 20 REVERSE VOLTAGE:VR(V) REVERSE VOLTAGE: VR(V) VF-IF CHARACTERISTICS VR-IR CHARACTERISTICS VR-Ct CHARACTERISTICS 920 500 100 Ta=25°C IF=0.7A Ta=25°C Ta=25°C 450 90 VR=400\ f=1MHz FORWARD VOLTAGE:VF(mV) 80 n=30pcs n=30pcs CAPACITANCE BETWEEN n=10pcs 900 AVE:892.5mV 880 50 10 0 870 VF DISPERSION MAP IR DISPERSION MAP Ct DISPERSION MAP 350 1000 Ta=25°C IF=0.5A 740 RESERVE RECOVERY TIME:trr(ns) TRANSIENT THAERMAL IMPEDANCE:Rth (°C/W) 300 PEAK SURGE FORWARD CURRENT:IFSM(A) 730 IR=1A rr=0.25*I 100 250 720 n=10pcs 710 200 700 150 690 680 100 670 AVE:192.0A 50 660 0.1 1000 0.001 0.01 0.1 10 100 trr DISPERSION MAP TIME:t(s) IFSM DISRESION MAP 1.5 FORWARD CURRENT:Io(A) AVERAGE RECTIFIED FORWARD CURRENT:10(A) AVERAGE RECTIFIED FORWARD POWER DISSIPATION:Pf(W) DC 0.5 0.5 0.5 0 0 50 75 0 0.5 0 100 125 0 1.5 AVERAGE RECTIFIED FORWARD CURRENT:Io(A) Io-Pf CHARACTERISTICS CASE TEMPARATURE:Tc(°C) AMBIENT TEMPERATURE:Ta(°C) Derating Curve*(Io-Tc)

Derating Curve (Io-Ta)



ESD DISPERSION MAP

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