# Switching diode

## **DA221M**

## Application

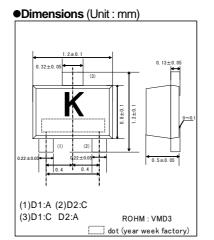
Ultra high speed switching

## Features

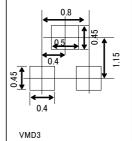
- 1) Ultra small mold type. (VMD3)
- 2) High reliability.

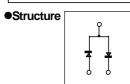
## Construction

Silicon epitaxial planar

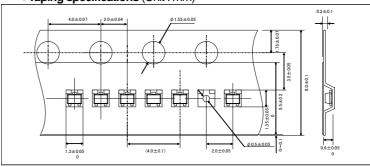


## ●Land size figure (Unit : mm)





●Taping specifications (Unit: mm)



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

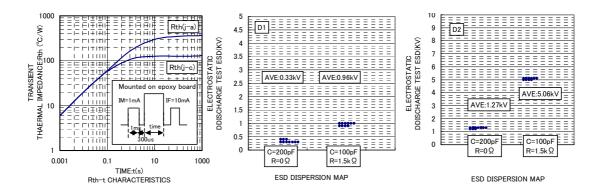
Parameter	Symbol	Limits	Unit
Reverse voltage (repetitive peak)	$V_{RM}$	20	V
Reverse voltage (DC)	$V_R$	20	V
Forward current surge peak (single)	$I_{FM}$	200	mA
Average rectified forward current (single)	lo	100	mA
Surge current (t=1us) (single)	I <sub>surge</sub>	300	mA
Power dissipation	Pd	150	mW
Junction temperature	Tj	150	င
Storage temperature	Tstg	-55 to +150	္

## ●Electrical characteristics (Ta=25°C)

Parameter	Symbol	Min.	Тур.	Max.	Unit	Conditions
Forward voltage	$V_{F}$	-	-	1.0	V	I <sub>F</sub> =10mA
Reverse current	I <sub>R</sub>	-	-	0.1	μΑ	V <sub>R</sub> =15V
Capacitance between terminals	Ct	-	-	3.0	pF	V <sub>R</sub> =6V , f=1MHz



#### ●Electrical characteristic curves (Ta=25°C) 100 D2 10 FORWARD CURRENT:IF(mA) FORWARD CURRENT:IF(mA) EVERSE CURRENTIA 10 0.1 0.1 0.1 100 200 300 400 500 600 700 800 900 1000 FORWARD VOLTAGE: VF(mV) VF-IF CHARACTERISTICS FORWARD VOLTAGE: VF(mV) REVERSE VOLTAGE: VR(V) VR-IR CHARACTERISTICS VF-IF CHARACTERISTICS 100 f=1MHz 10 REVERSE CURRENT:IR(nA) CAPACITANCE BETWEEN TERMINALS:Ct(pF) CAPACITANCE BETWEEN TERMINALS:Ct(pF) D2 Ta=75°C 0.1 0.01 0.001 0.1 0.1 15 5 15 0 0 10 0 5 15 REVERSE VOLTAGE: VR(V) REVERSE VOLTAGE:VR(V) REVERSE VOLTAGE:VR(V) VR-Ct CHARACTERISTICS VR-IR CHARACTERISTICS VR-Ct CHARACTERISTICS Ta=25°C VR=15V Ta=25°C IF=10m/ IF=10mA FORWARD VOLTAGE:VF(mV) D1 710 700 690 AVE:709.8mV 0.1 680 VF DISPERSION MAP VF DISPERSION MAP IR DISPERSION MAP Ta=25°C VR=6V Ta=25°C VR=15V Ta=25°C VR=6V RESERVE RECOVERY TIME:trr(ns) IF=10mA RL=100Ω REVERSE CURRENT:IR(nA) n=30pcs f=1MHz CAPACITANCE BETWEEN n=10pcs Irr=0.1\*IR 5 3 AVE:0.620nA 2 AVE:1.20ns Ct DISPERSION MAP IR DISPERSION MAP trr DISPERSION MAP



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