PIN diode RN142G

Applications

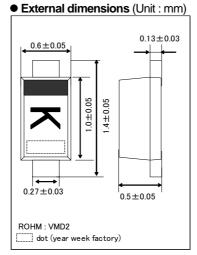
High frequency switching

● Features

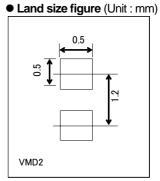
- 1) Ultra small mold type. (VMD2)
- 2) High frequency resistance which is small and low capacity.

Construction

Silicon epitaxial planar

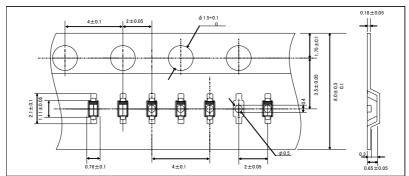


• Taping specifications(Unit : mm)



Structure





● Absolute maximum ratings (Ta=25°C)

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Parameter	Symbol	Limits	Unit
Reverse voltage	V_R	60	V
Reverse current	I _F	100	mA
Junction temperature	Tj	150	°C
Storage temperature	Tstg	-55 to +150	°C

●Electrical characteristics (Ta=25°C)

Parameter	Symbol	Min.	Тур.	Max.	Unit	Conditions
Forward voltage	V_{F}	-	-	1	V	I _F =10mA
Reverse current	I _R	-	-	0.1	μA	$V_R=60V$
Capacitance between terminals	Ct	-	-	0.45	pF	V _R =1V , f=1MHz
High frequency resistance	Rf	-	-	3	Ω	I _F =3mA,f=100MHz
		-	-	2	Ω	I _F =10mA,f=100MHz

●Electrical characteristic curves (Ta=25°C) f=1MHz FORWARD CURRENT: IF(mA) REVERSE CURRENT:IR(nA) CAPACITANCE BETWEEN 10 TERMINALS:Ct(pF) 0.1 0.01 0.01 10 20 REVERSE VOLTAGE:VR(V) 0 0.1 0.2 0.3 0.4 0.5 0.6 0.7 0.8 0.9 1.1 1.2 0 30 60 70 80 0 30 FORWARD VOLTAGE: VF(V) REVERSE VOLTAGE: VR(V) VR-IR CHARACTERISTICS VF-IF CHARACTERISTICS VR-Ct CHARACTERISTICS 100 Ta=25°C Ta=25°C VR=0V f=1MHz FORWARD VOLTAGE:VF(mV) CAPACITANCE BETWEEN TERMINALS:Ct(pF) n=30pcs FORWARD OPERATING RESISTANCE:rf(요) 810 0.1 0.1 800 0.1 10 100 FREQUENCY(MHz) Ct-f CHARACTERISTICS 1000 FORWARD CURRENT:IF(mA) rf-IF CHARACTERISTICS VF DISPERSION MAP Ta=25°C f=1MHz VR=1V Ta=25°C VR=60V Ta=25°C f=100MHz 0.9 0.8 FORWARD OPERATING RESISTANCE:rf(12) 1 2 1 2 1 2 1 1 8 1 8 1 1.8 REVERSE CURRENT:IR(nA) IF=3mA n=10pcs n=10pcs 1.2 AVE:0.364pF AVE:1.206Ω 0 0 FORWARD CURRENT:IF(mA) rf DISPERSION MAP IR DISPERSION MAP Ct DISPERSION MAP Ta=25°C f=100MHz 0.9 0.8 IF=10mA ELECTROSTATIC DISCHARGE TEST ESD(KV) FORWARD OPERATING RESISTANCE:rf(Ω) 0.7 AVE:2.01kV 0.6 0.5 0.4 0.3 AVE:0.71kV 0.2 1111 AVE:0.639 Ω 0.1 C=200pF C=100pF FORWARD CURRENT:IF(mA) rf DISPERSION MAP

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