Switching diode **FMN1**

Application

Ultra high speed switching

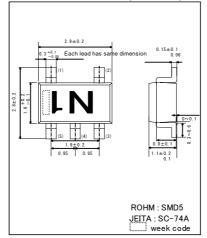
Features

- 1) Small mold type. (SMD5)
- 2) High reliability

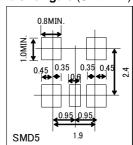
Construction

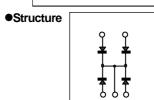
Silicon epitaxial planar

●External dimensions (Unit : mm)

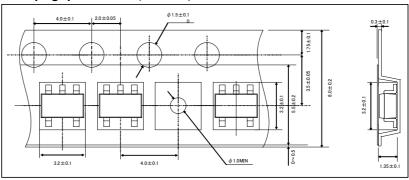


●Land size figure (Unit : mm)





● Taping specifications (Unit: mm)



● Absolute maximum ratings (Ta=25°C)

Parameter	Symbol	Limits	Unit
Reverse voltaeg (repetitive peak)	V_{RM}	80	V
Reverse voltage (DC)	V_R	80	V
Forward current (Single)	I _{FM}	80	mA
Average rectified forward current (Single)	lo	25	mA
Surge current (t=1us)	I _{surge}	250	mA
Power dissipation	Pd	150	mW
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}	-	-	0.9	V	I _F =5mA
Reverse current	I _R	-	-	0.1	μA	V _R =70V
Capacitance between terminals	Ct	-	-	3.5	pF	V _R =6V , f=1MHz
Reverse recovery time	trr	-	-	4	ns	V_R =6 V , IF=5 mA , RL=50 Ω

●Electrical characteristic curves (Ta=25°C) Ta=150°C Ta=125°C FORWARD CURRENT:IF(mA) REVERSE 0.1 0.01 0.1 0 FORWARD VOLTAGE: VF(mV) VF-IF CHARACTERISTICS REVERSE VOLTAGE: VR(V) VR-IR CHARACTERISTICS REVERSE VOLTAGE:VR(V) VR-Ct CHARACTERISTICS 710 Ta=25°C VR=6V f=1MHz Ta=25°C IF=5mA Ta=25°C VR=70V FORWARD VOLTAGE:VF(mV) 80 n=30pcs 700 REVERSE CURRENT:IR(nA) n=10pcs 70 690 50 680 30 AVE:1.039pF 20 670 AVE:682.7mV 660 0 0 VF DISPERSION MAP IR DISPERSION MAP Ct DISPERSION MAP 20 VR=6V PEAK SURGE FORWARD CURRENT:IFSM(A) IF=5mA RL=50 Ω FORWARD CURRENT:IFSM(A) 15 n=10pcs PEAK SURGE RESERVE RECOVERY 10 AVE:1.26ns 0 0 10 NUMBER OF CYCLES 100 IFSM DISRESION MAP trr DISPERSION MAP Rth(j-a) TRANSIENT THAERMAL IMPEDANCE:Rth (°C/W) PEAK SURGE FORWARD CURRENT:IFSM(A) ELECTROSTATIC DISCHARGE TEST ESD(KV) Rth(j-c) 10 100 3 2 10 C=200pF C=100pF 0.001 0.1 1 TIME:t(ms) 10 100 0.1 TIME:t(s) 10 IFSM-t CHARACTERISTICS Rth-t CHARACTERISTICS ESD DISPERSION MAP

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