Switching diode

DAN217

Application

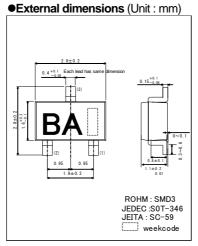
Ultra high speed switching

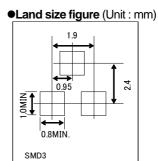
Features

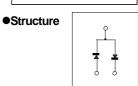
- 1) Small mold type. (SMD3)
- 2) High reliability.

Construction

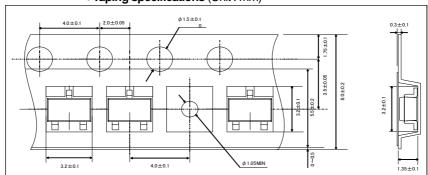
Silicon epitaxial planar











● Absolute maximum ratings (Ta=25°C)

Parameter	Symbol	Limits	Unit	
Reverse voltage (repetitive peak)	V_{RM}	80	V	
Reverse voltage (DC)	V_R	80	V	
Forward current (Single)	I _{FM}	300	m A	
Average rectified forward current (Single)	lo	100	mΑ	
Surge current (t=1us)	I _{surge}	4	Α	
Power dissipation	Pd	200	m W	
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}	-	-	1.2	V	I _F =100mA
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) 10000 FORWARD CURRENT:IF(mA) CAPACITANCE BETWEEN TERMINALS:Ct(pF) REVERSE CURRENT:IR(10 100 10 0.1 0.1 0.01 0.1 0 20 REVERSE VOLTAGE: VR(V) VR-IR CHARACTERISTICS REVERSE VOLTAGE:VR(V) FORWARD VOLTAGE: VF(mV) VF-IF CHARACTERISTICS 100 950 90 Ta=25°C VR=80V IF=100m/ 80 FORWARD VOLTAGE:VF(mV) 940 REVERSE CURRENT:IR(nA) 70 60 930 50 5 40 920 AVE:9.655nA 30 20 910 10 900 VF DISPERSION MAP IR DISPERSION MAP Ct DISPERSION MAP RESERVE RECOVERY TIME:trr(ns) PEAK SURGE FORWARD CURRENT:IFSM(A) VR=6V PEAK SURGE FORWARD CURRENT:IFSM(A) 15 RL=50 Ω n=10pcs 6 10 5 AVE:3.50A 0 IFSM DISRESION MAP trr DISPERSION MAP NUMBER OF CYCLES IFSM-CYCLE CHARACTERISTICS 1000 THAERMAL IMPEDANCE:Rth (°C/W) PEAK SURGE FORWARD CURRENT:IFSM(A) ELECTROSTATIC DISCHARGE TEST ESD(KV) TRANSIENT 3 2 C=200pF C=100nF R=0Ω 0.1 1 TIME:t(ms) 10 0.001 0.1 TIME:t(s) 10 1000 ESD DISPERSION MAP IFSM-t CHARACTERISTICS Rth-t CHARACTERISTICS



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