# Switching diode

# **DAN202K**

#### Applications

Ultra high speed switching

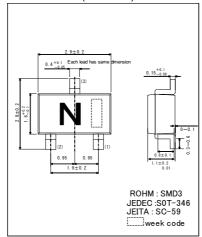
#### ● Features

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

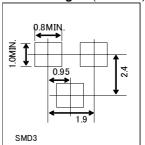
#### Construction

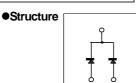
Silicon epitaxial planar

# ●Dimensions (Unit:mm)

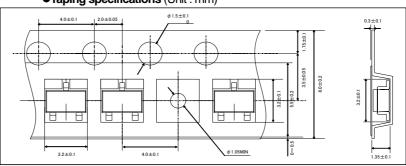


# ●Land size figure (Unit : mm)





# ● Taping specifications (Unit: mm)



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

Parameter	Symbol	Limits	Unit
Reverse voltage (repatitive peak)	$V_{RM}$	80	V
Reverse voltage (DC)	$V_R$	80	V
Forward current (Single)	I <sub>FM</sub>	300	mA
Forward current (Double)	I <sub>FM</sub>	450	mA
Average rectified forward current (Single)	lo	100	mA
Average rectified forward current (double)	lo	150	mA
Surge current (t=1us) (Single)	I <sub>surge</sub>	4	Α
Surge current (t=1us) (Double)	I <sub>surge</sub>	6	Α
Power dissipation	Pd	200	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	$V_{F}$	-	-	1.2	V	I <sub>F</sub> =100mA
Reverse current	I <sub>R</sub>	-	-	0.1	μA	V <sub>R</sub> =70V
Capacitance between terminals	Ct	-	-	3.5	pF	V <sub>R</sub> =6V , f=1MHz
Reverse recovery time	trr	-	-	4	ns	$V_R$ =6V , IF=5mA , RL=50 $\Omega$



#### ●Electrical characteristic curves (Ta=25°C) Ta=150°C 10 10000 FORWARD CURRENT:IF(mA) REVERSE CURRENT:IR(nA) CAPACITANCE BETWEEN TERMINALS:Ct(pF) 10 0.1 0.1 0.01 0 30 40 50 60 70 5 10 15 REVERSE VOLTAGE:VR(V) VR-Ct CHARACTERISTICS 0 FORWARD VOLTAGE:VF(mV) VF-IF CHARACTERISTICS REVERSE VOLTAGE: VR(V) VR-IR CHARACTERISTICS Ta=25°C VR=80V Ta=25°C 90 VR=6V IF=100m/ FORWARD VOLTAGE:VF(mV) 940 80 REVERSE CURRENT:IR(nA) n=30pcs 70 930 5 50 920 30 3 910 20 2 AVE:921.7m 10 900 VF DISPERSION MAP IR DISPERSION MAP Ct DISPERSION MAP Ta=25°C VR=6V IF=5mA RESERVE RECOVERY TIME:trr(ns) PEAK SURGE FORWARD CURRENT:IFSM(A) PEAK SURGE FORWARD CURRENT:IFSM(A) RL=50 Ω 7 10 3 \_ AVE:3.50A AVE:1.93ns 0 NUMBER OF CYCLES IFSM DISPERSION MAP trr DISPERSION MAP TRANSIENT THAERMAL IMPEDANCE:Rth (°C/W) FORWARD CURRENT:FSM(A) ELECTROSTATIC DISCHARGE TEST ESD(KV) 100 Rth(j-c) AVE:0.97kV 1 TIME:t(ms) 10 IFSM-t CHARACTERISTICS 0.1 1 TIME:t(ms) 0.001 0.01 Rth-t CHARACTERISTICS ESD DISPERSION MAP

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