Band switching diode

DAN235U

Application

High speed switching

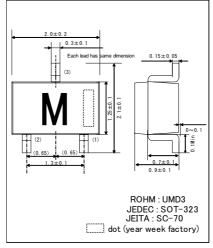
Features

- 1) Small mold type. (UMD3)
- 2) High reliability.

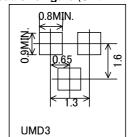
Construction

Silicon epitaxial planar

●External dimensions (Unit : mm)



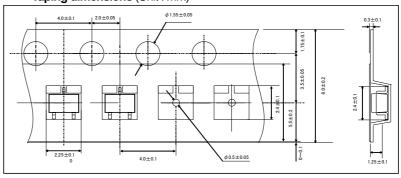
●Lead size figure (Unit : mm)



●Structure



● Taping dimensions (Unit: mm)



● Absolute maximum ratings (Ta=25°C)

| Parameter | Symbol | Limits | Unit |
|----------------------|--------|-------------|------|
| Power dissipation | Pd | 150 | mW |
| Reverse voltage (DC) | V_R | 35 | V |
| Junction temperature | Tj | 125 | °C |
| Storage temperature | Tstg | -55 to +125 | °C |

●Electrical characteristics (Ta=25°C)

| Parameter | Symbol | Min. | Тур. | Max. | Unit | Conditions |
|-------------------------------|---------|------|------|------|------|--------------------------------|
| Forward voltage | V_{F} | - | - | 1.0 | V | I _F =10mA |
| Reverse current | I_R | 1 | - | 10 | nA | V _R =25V |
| Capacitance between terminals | Ct | 1 | - | 1.2 | pF | V _R =6V , f=1MHz |
| Forwad operating resistance | rf | 1 | - | 0.9 | Ω | I _F =2mA , f=100MHz |

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●Electrical characteristic curves (Ta=25°C) FORWARD CURRENT:IF(mA) RRENT:IR(nA) CAPACITANCE BETWEEN TERMINALS:Ct(pF) 10 0.001 0.001 0.01 0.1 0.01 0 10 15 20 25 REVERSE VOLTAGE:VR(V) VR-IR CHARACTERISTICS 0 REVERSE VOLTAGE:VR(V) VR-Ct CHARACTERISTICS FORWARD VOLTAGE: VF(mV) VF-IF CHARACTERISTICS 0.18 Ta=25°C 0.9 Ta=25°C VR=6V Ta=25°C VR=25V FORWARD VOLTAGE:VF(mV) IF=10mA 0.16 0.8 REVERSE CURRENT:IR(nA) CAPACITANCE BETWEEN f=1MHz 10.7 0.6 0.5 0.4 0.3 0.14 840 0.12 0.1 830 0.08 0.06 820 0.2 0.04 0.02 0.1 810 0 VF DISPERSION MAP Ct DISPERSION MAP IR DISPERSION MAP Ta=25°C Ta=25°C f=100MHz 0.9 RESERVE RECOVERY TIME:trr(ns) VR=6V PEAK SURGE FORWARD CURRENT:IFSM(A) 0.8 IF=10mA RL=100Ω FORWARD OPERATING IF=2mA RESISTANCE:म(ਲ਼ 0.7 0.6 0.4 0.3 Irr=0.1*IR 10 2 0.2 AVE:1.20ns 0.1 AVE:0.630 Ω 0 IFSM DISRESION MAP trr DISPERSION MAP FORWARD CURRENT:IF(mA) THAERMAL IMPEDANCERTH (°C.M). 10 PEAK SURGE FORWARD CURRENT:IFSM(A) PEAK SURGE FORWARD CURRENT:IFSM(A) 8 7 6 5 10 3 2



TIME:t(s) IFSM-t CHARACTERISTICS 100

0.001

100

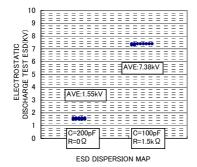
NUMBER OF CYCLES IFSM-CYCLE CHARACTERISTICS

0.1

0.1 TIME:t(s) 10

Rth-t CHARACTERISTICS

1000



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