# Schottky barrier diode

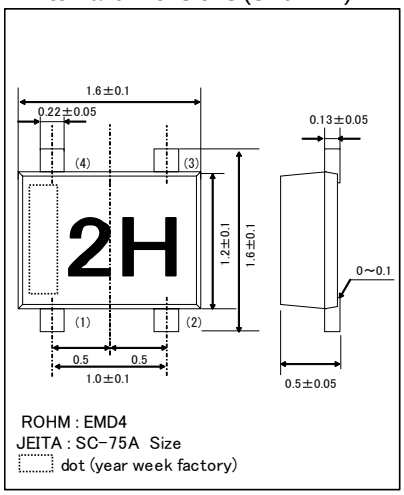
## RB480Y-90

●**Applications**
Low current rectification

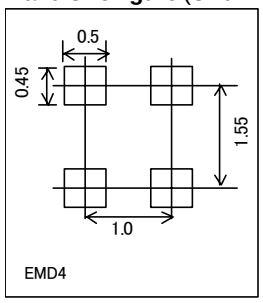
●**Features**
1) Ultra small mold type. (EMD4)
2) Low $V_F$
3) High reliability

●**Construction**
Silicon epitaxial planar

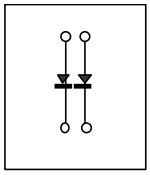
●**External dimensions** (Unit : mm)



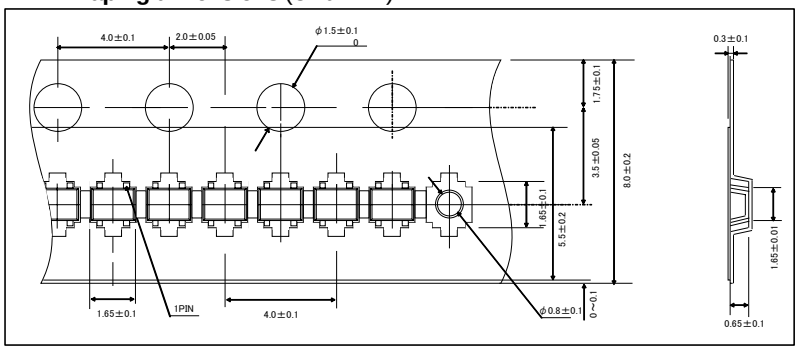

●**Land size figure** (Unit : mm)




●**Structure**



●**Taping dimensions** (Unit : mm)




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

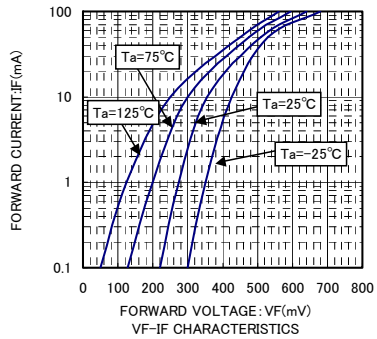
| Parameter | Symbol | Limits | Unit |
|---|---|---|---|
| Reverse voltage (repetitive peak) | $V_{RM}$ | 90 | V |
| Reverse voltage (DC) | $V_R$ | 90 | V |
| Average rectified forward current (*1) | Io | 100 | mA |
| Forward current surge peak (60Hz・1cyc) (*1) | $I_{FSM}$ | 1 | A |
| Junction temperature | Tj | 125 | ℃ |
| Storage temperature | Tstg | -40 to +125 | ℃ |

(*1) Rating of per diode

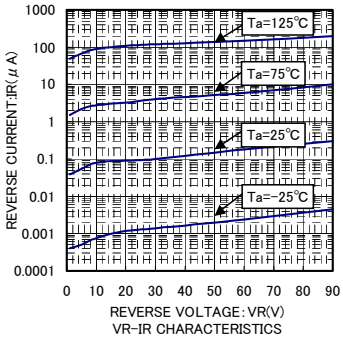
●**Electrical characteristic** (Ta=25°C)

| Parameter | Symbol | Min. | Typ. | Max. | Unit | Conditions |
|---|---|---|---|---|---|---|
| Forward voltage | $V_F$ | - | 0.64 | 0.69 | V | $I_F$=100mA |
| Reverse current | $I_R$ | - | 0.3 | 5 | μA | $V_R$=90V |

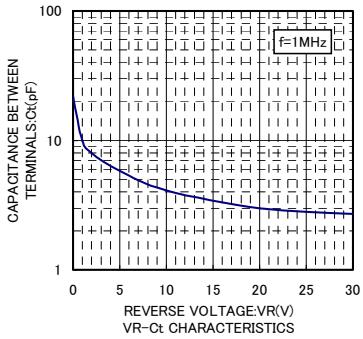
## ●Electrical characteristic curves



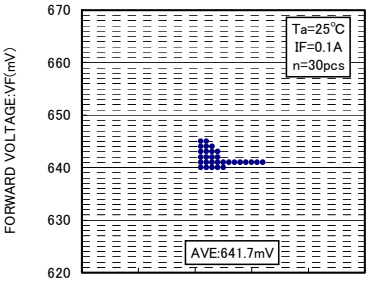

VF-IF CHARACTERISTICS



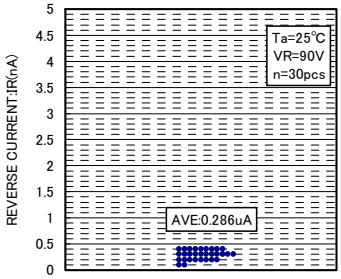

VR-IR CHARACTERISTICS



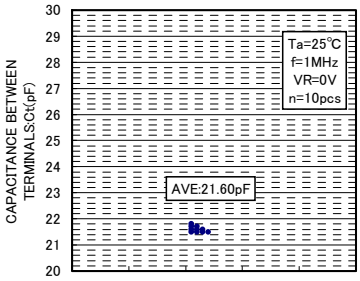

VR-Ct CHARACTERISTICS



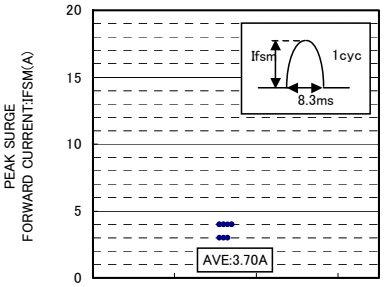

VF DISPERSION MAP



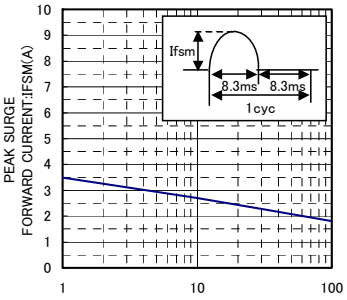

IR DISPERSION MAP



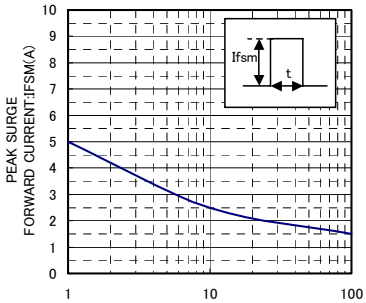

Ct DISPERSION MAP



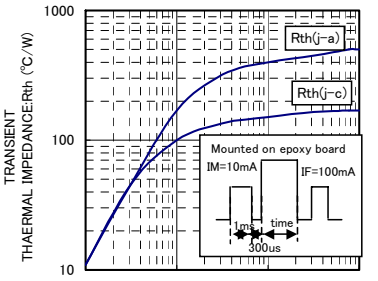

IFSM DISRESION MAP



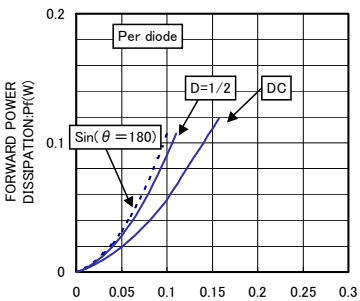

IFSM-CYCLE CHARACTERISTICS



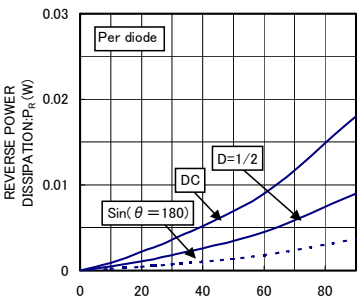

IFSM-t CHARACTERISTICS



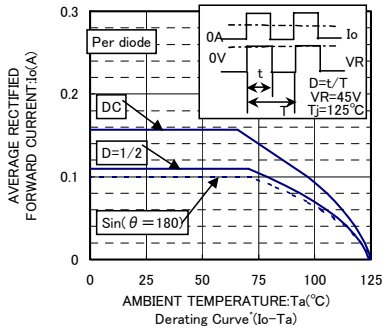

Rth-t CHARACTERISTICS

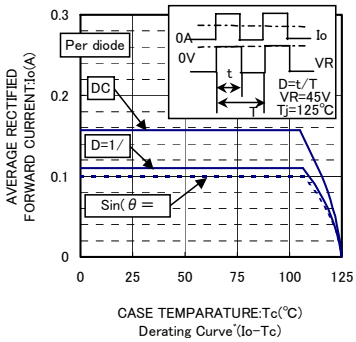



Io-Pf CHARACTERISTICS




VR-PR CHARACTERISTICS


0.3
0.2
0.1
0
Per diode
DC
D=1/2
Sin(θ=180)
0A
0V
Io
VR
t
T
D=t/T
VR=45V
Tj=125℃
0
25
50
75
100
125
AVERAGE RECTIFIED FORWARD CURRENT:Io(A)
AMBIENT TEMPERATURE:Ta(℃)
Derating Curve(Io-Ta)


0.3
0.2
0.1
0
Per diode
DC
D=1/
Sin(θ=
0A
0V
Io
VR
t
T
D=t/T
VR=45V
Tj=125℃
0
25
50
75
100
125
AVERAGE RECTIFIED FORWARD CURRENT:Io(A)
CASE TEMPARATURE:Tc(℃)
Derating Curve(Io-Tc)

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