Schottky barrier diode

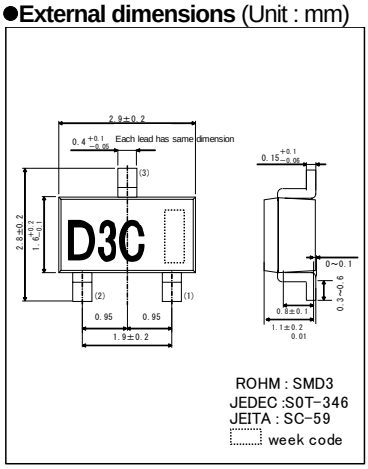
RB421D

●**Applications**
Low power rectification

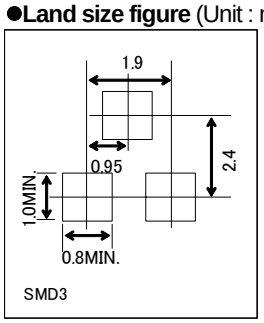
●**Features**
1) Small mold type. (SMD3)
2) Low I_R.
3) High reliability.

●**Construction**
Silicon epitaxial planar

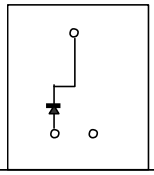
●**External dimensions** (Unit : mm)



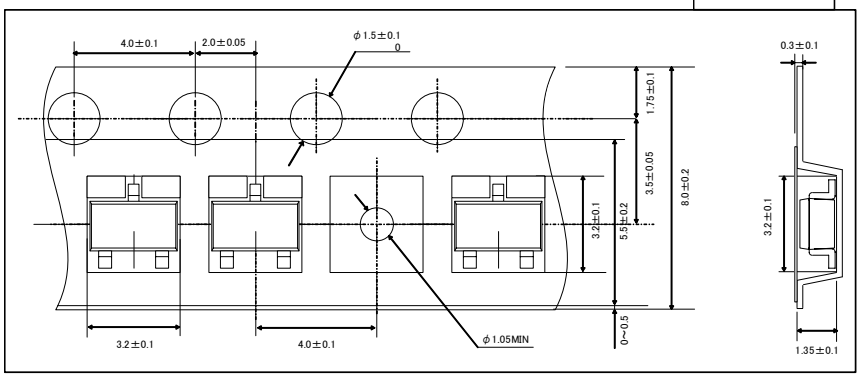
●**Land size figure** (Unit : mm)



●**Structure**



●**Taping specification** (Unit : mm)



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

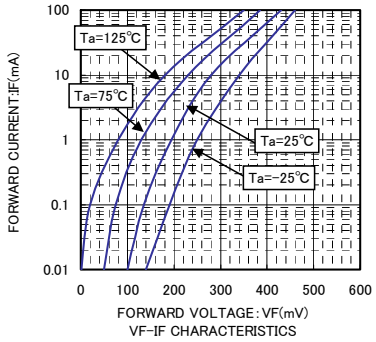
Parameter	Symbol	Limits	Unit
Reverse voltage (repetitive peak)	V_{RM}	40	V
Reverse voltage (DC)	V_R	40	V
Average rectified forward current (*1)	Io	100	mA
Forward current surge peak (60Hz・1cyc) (*1)	I_{FSM}	1	A
Junction temperature	Tj	125	℃
Storage temperature	Tstg	-40 to +125	℃

(*1) Rating of per diode

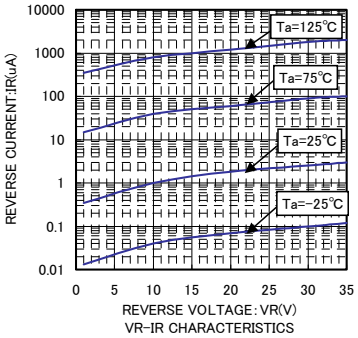
●**Electrical characteristics** (Ta = 25°C)

Parameter	Symbol	Min.	Typ.	Max.	Unit	Conditions
Forward voltage	V_F1	-	-	0.55	V	I_F=100mA
	V_F2	-	-	0.34	V	I_F=10mA
Reverse current	I_R1	-	-	30	μA	V_R=10V
Capacitance between terminals	Ct1	-	6	-	pF	V_R=10V , f=1MHz

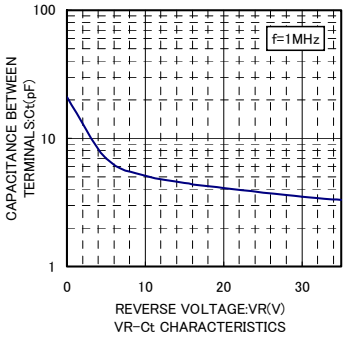
●**Electrical characteristic curves** (Ta = 25°C)



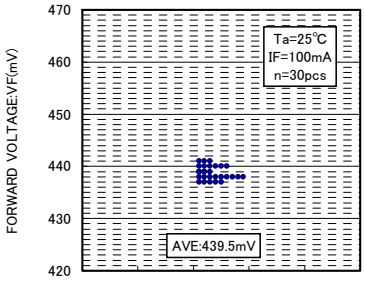
VF-IF CHARACTERISTICS



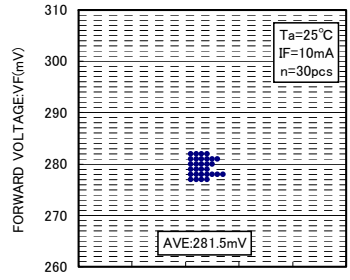
VR-IR CHARACTERISTICS



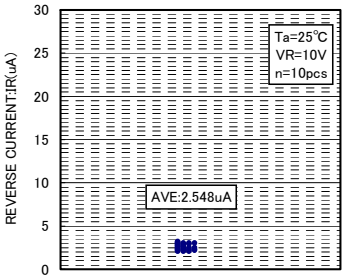
VR-Ct CHARACTERISTICS



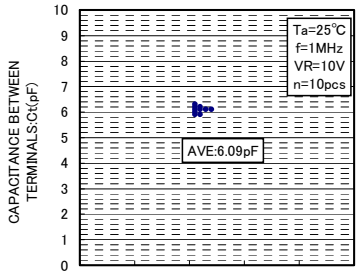
VF DISPERSION MAP



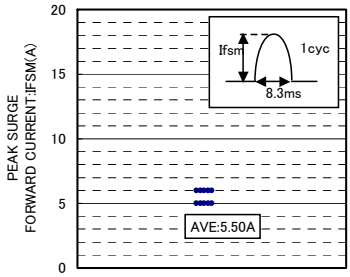
VF DISPERSION MAP



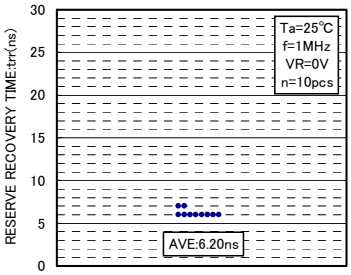
IR DISPERSION MAP



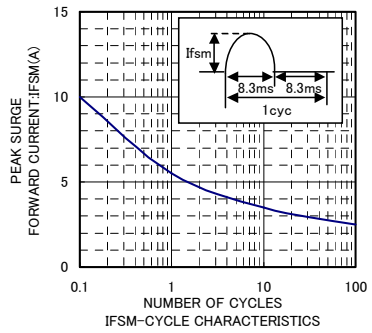
Ct DISPERSION MAP



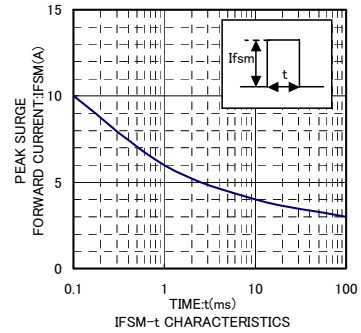
IFSM DISRESION MAP



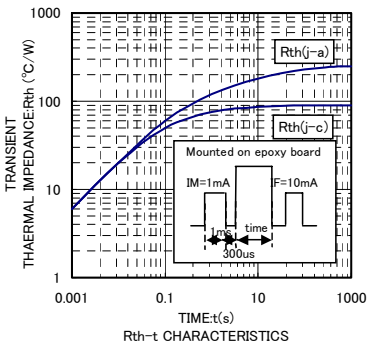
trr DISPERSION MAP



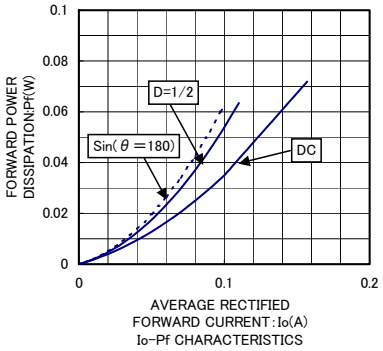
IFSM-CYCLE CHARACTERISTICS

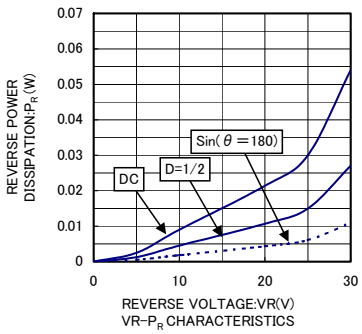


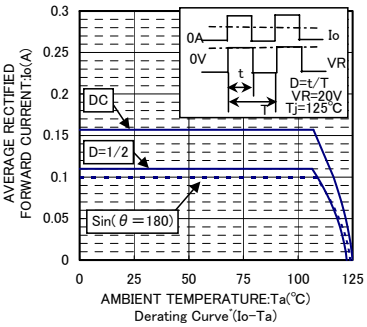
IFSM-t CHARACTERISTICS

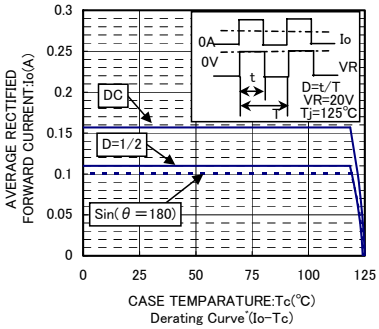


Rth-t CHARACTERISTICS


FORWARD POWER DISSIPATION:Pf(W)
0.1
0.08
0.06
0.04
0.02
0
0
0.1
0.2
D=1/2
Sin(θ=180)
DC
AVERAGE RECTIFIED FORWARD CURRENT:Io(A)
Io-Pf CHARACTERISTICS


REVERSE POWER DISSIPATION:P_R(W)
0.07
0.06
0.05
0.04
0.03
0.02
0.01
0
0
10
20
30
Sin(θ=180)
D=1/2
DC
REVERSE VOLTAGE:VR(V)
VR-P_R CHARACTERISTICS


AVERAGE RECTIFIED FORWARD CURRENT:Io(A)
0.3
0.25
0.2
0.15
0.1
0.05
0
0
25
50
75
100
125
0A
Io
0V
VR
t
T
D=t/T
VR=20V
Tj=125°C
DC
D=1/2
Sin(θ=180)
AMBIENT TEMPERATURE:Ta(°C)
Derating Curve(Io-Ta)


AVERAGE RECTIFIED FORWARD CURRENT:Io(A)
0.3
0.25
0.2
0.15
0.1
0.05
0
0
25
50
75
100
125
0A
Io
0V
VR
t
T
D=t/T
VR=20V
Tj=125°C
DC
D=1/2
Sin(θ=180)
CASE TEMPARATURE:Tc(°C)
Derating Curve(Io-Tc)

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