Schottky barrier diode

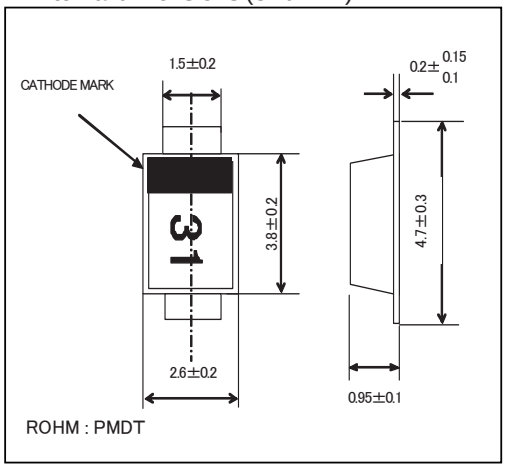
RB051LA-40

●**Applications**
General rectification

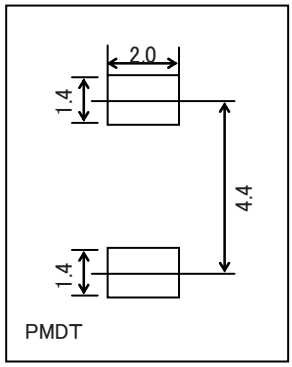
●**Features**
1) Small and Thin power type (PMDT)
2) High reliability.
3) Low I_R

●**Structure**
Silicon epitaxial planar

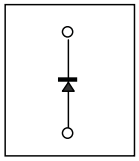
●**External dimensions** (Unit : mm)



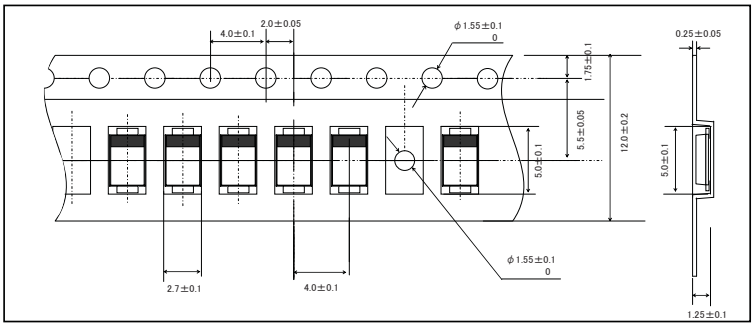
●**Land size figure** (Unit : mm)



●**Structure**



●**Taping dimensions** (Unit : mm)



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

Parameter	Symbol	Limits	Unit
Reverse voltage (repetitive peak)	V_{RM}	40	V
Reverse voltage (DC)	V_R	20	V
Average rectified forward current (*1)	Io	3.0	A
Forward current surge peak（60Hz・1cyc）	I_{FSM}	70	A
Junction temperature	Tj	125	℃
Storage temperature	Tstg	-40 to +125	℃

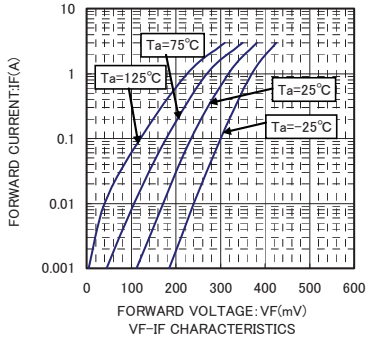
(*1) Alumina substrate at the time of assemble, TL=90℃ max.

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

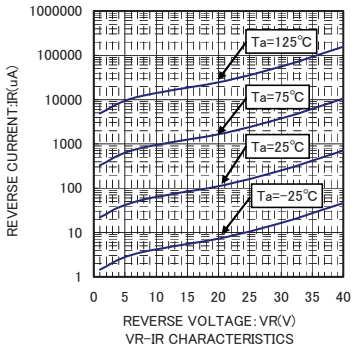
Parameter	Symbol	Min.	Typ.	Max.	Unit	Conditions
Forward voltage	V_{F1}	-	-	0.35	V	I_F=1A
	V_{F2}	-	-	0.45	V	I_F=3A
Reverse current	I_{R1}	-	-	1	mA	V_R=20V
	I_{R2}	-	-	150	μA	V_R=15V

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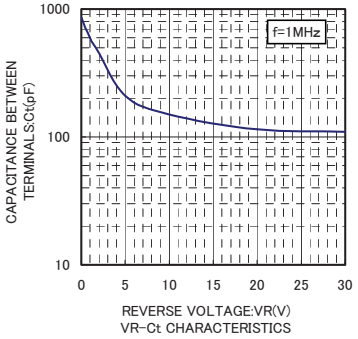
●Electrical characteristic curves



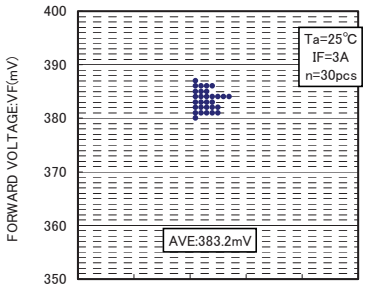
VF-IF CHARACTERISTICS



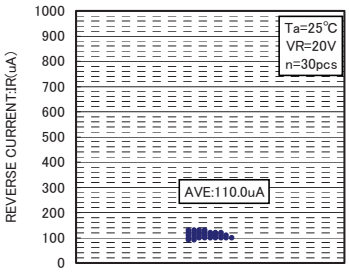
VR-IR CHARACTERISTICS



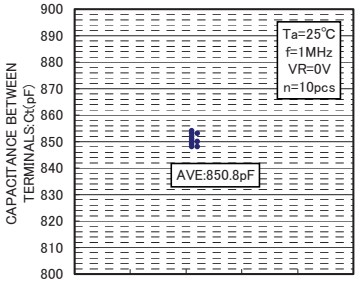
VR-Ct CHARACTERISTICS



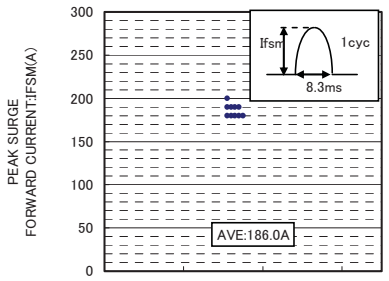
VF DISPERSION MAP



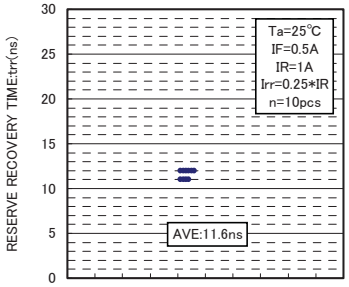
IR DISPERSION MAP



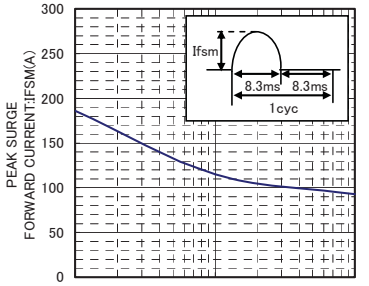
Ct DISPERSION MAP



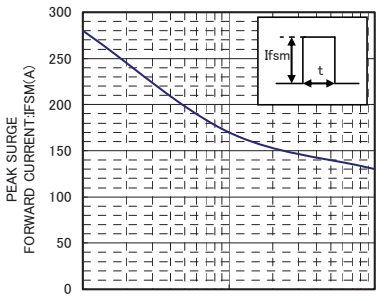
IFSM DISRESION MAP



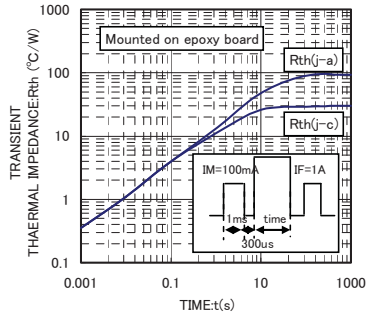
trr DISPERSION MAP



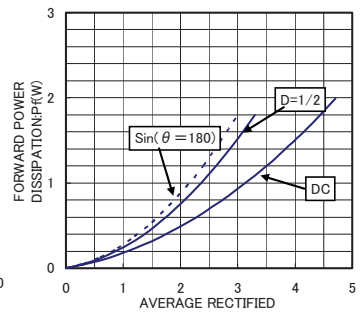
IFSM-CYCLE CHARACTERISTICS



IFSM-t CHARACTERISTICS

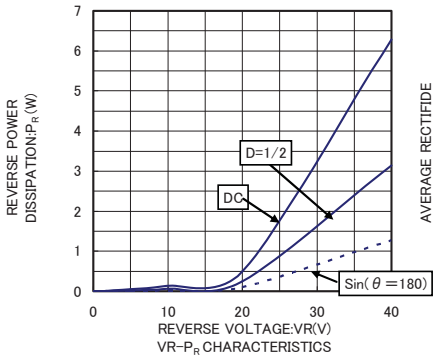


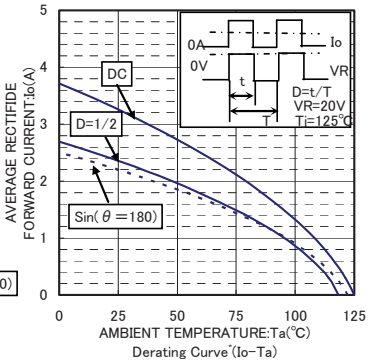
Rth-t CHARACTERISTICS

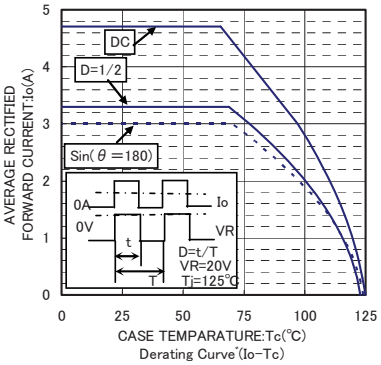


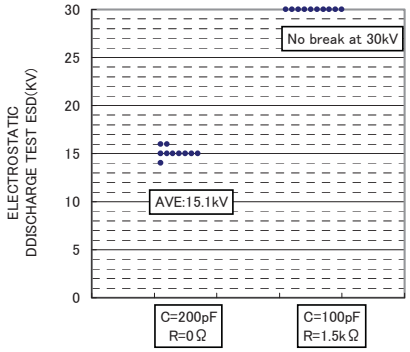
Io-Pf CHARACTERISTICS

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ESD DISPERSION MAP

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