Fast Recovery Diode

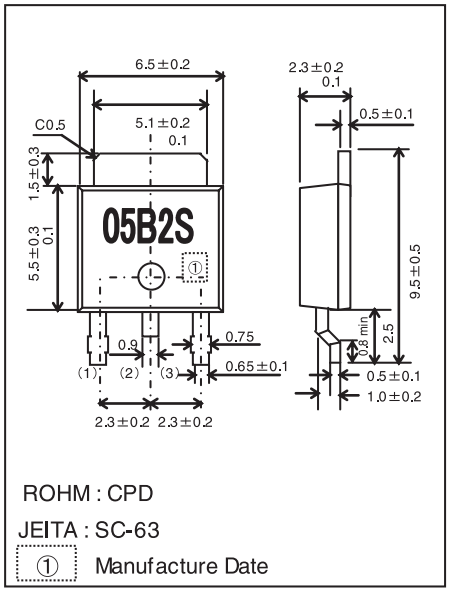
RF501B2S

●Applications
General rectification

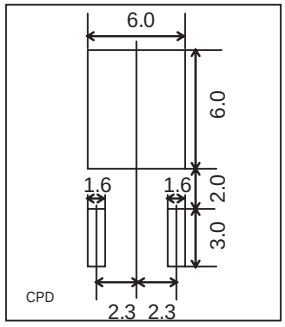
●Features
1)Power mold type.(CPD)
2)High reliability
3)Low Vf
4)Very fast recovery
5)Low switching loss

●Construction
Silicon epitaxial planer

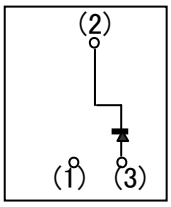
●Dimensions (Unit : mm)



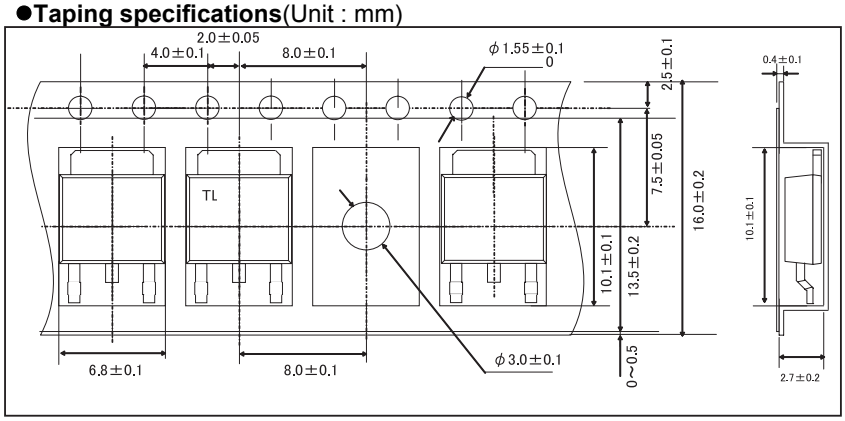
●Land size figure (Unit : mm)



●Structure



●Taping specifications (Unit : mm)



●Absolute maximum ratings (Ta=25°C)

Parameter	Symbol	Limits	Unit
Reverse voltage (repetitive peak)	V_{RM}	200	V
Reverse voltage (DC)	V_R	200	V
Average rectified forward current (*1)	Io	5	A
Forward current surge peak (60Hz / 1cyc)(*1	I_{FSM}	40	A
Junction temperature	Tj	150	℃
Storage temperature	Tstg	-55～+150	℃

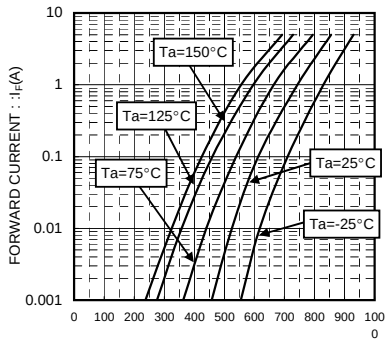
(*1)Business frequencies, Rating of R-load, 1/2 Io per diode, Tc=128°C

●Electrical characteristics (Ta=25°C)

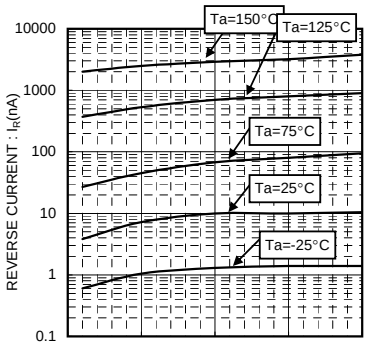
Parameter	Symbol	Min.	Typ.	Max.	Unit	Conditions
Forward voltage	V_F	-	0.86	0.92	V	I_F=5A
Reverse current	I_R	-	0.015	1	μA	V_R=200V
Reverse recovery time	trr	-	15	30	ns	I_F=0.5A,I_R=1A,Irr=0.25*I_R

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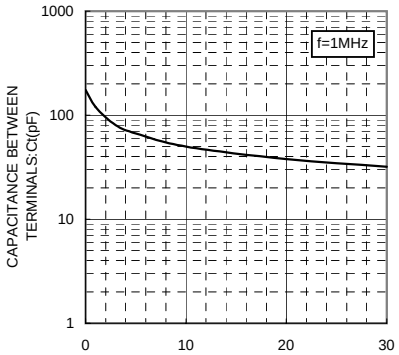
●Electrical characteristic curves



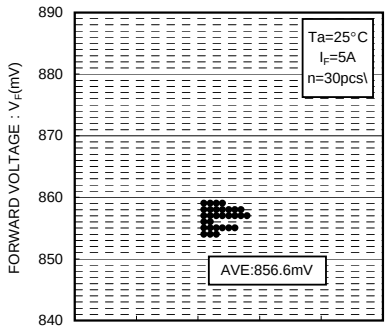
V_F-I_F CHARACTERISTICS



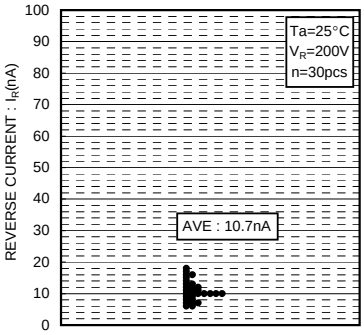
V_R-I_R CHARACTERISTICS



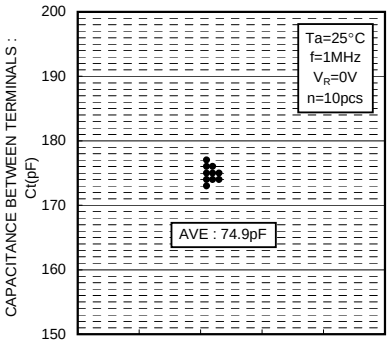
V_R-Ct CHARACTERISTICS



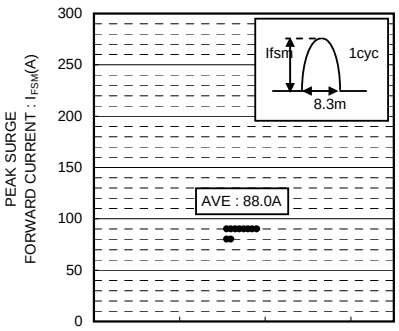
V_F DISPERSION MAP



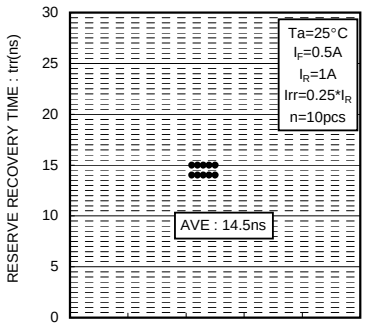
I_R DISPERSION MAP



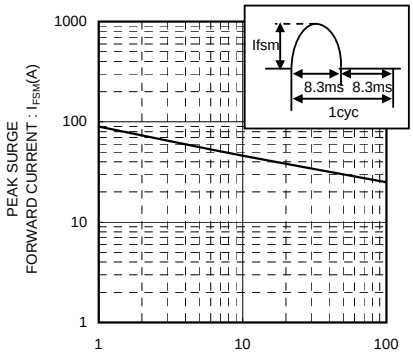
Ct DISPERSION MAP



I_{FSM} DISPERSION MAP

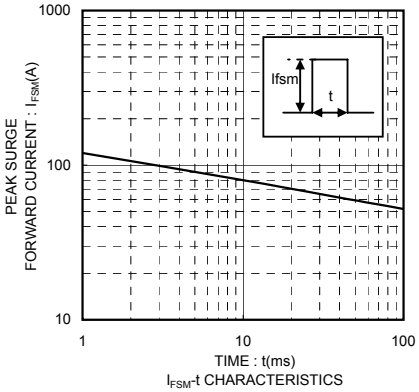


trr DISPERSION MAP

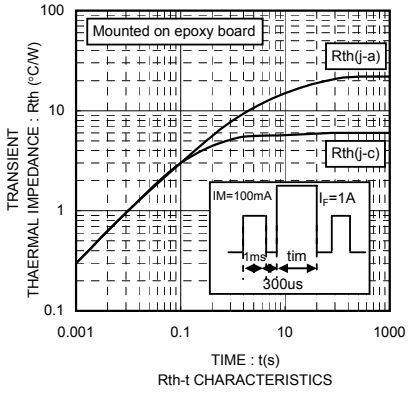


I_{FSM}-CYCLE CHARACTERISTICS

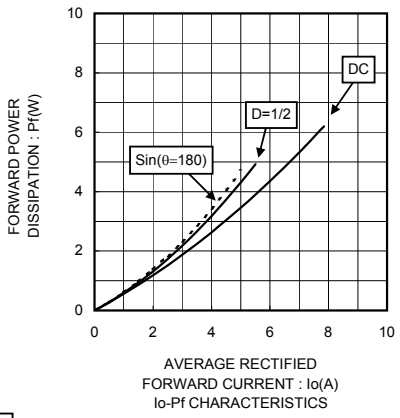
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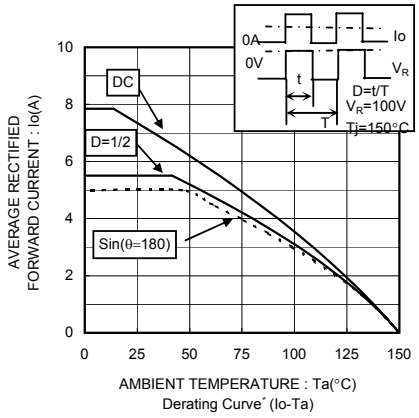
I_{FSM}-t CHARACTERISTICS



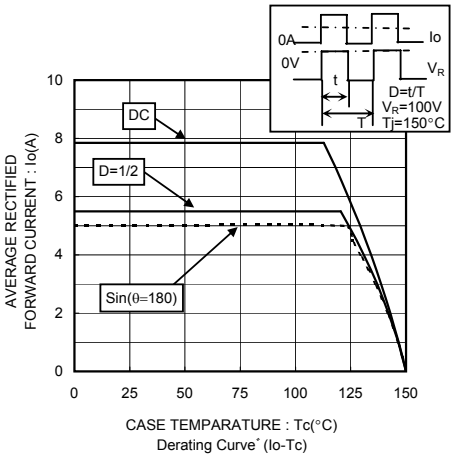
Rth-t CHARACTERISTICS



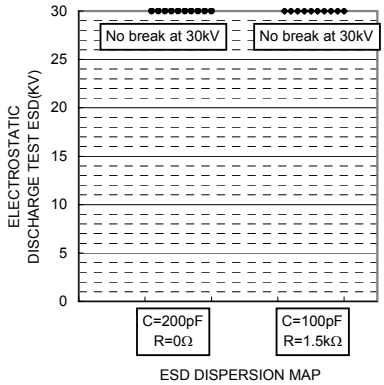
Io-Pf CHARACTERISTICS



Derating Curve (Io-Ta)



Derating Curve (Io-Tc)



ESD DISPERSION MAP

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