

Fast Recovery Diode

RF501B2S

●Applications

General rectification

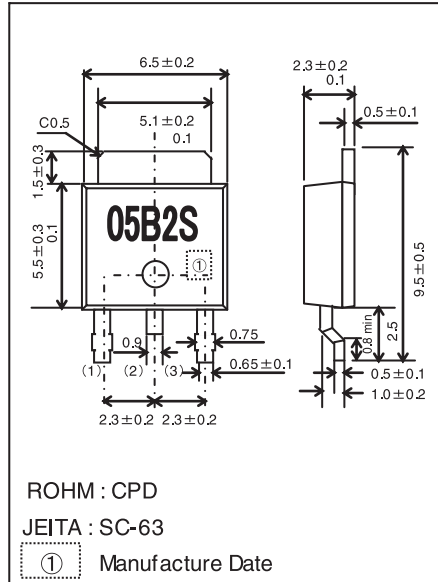
●Features

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

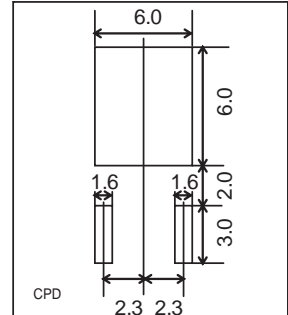
●Construction

Silicon epitaxial planar

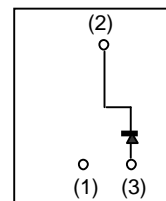
●Dimensions (Unit : mm)



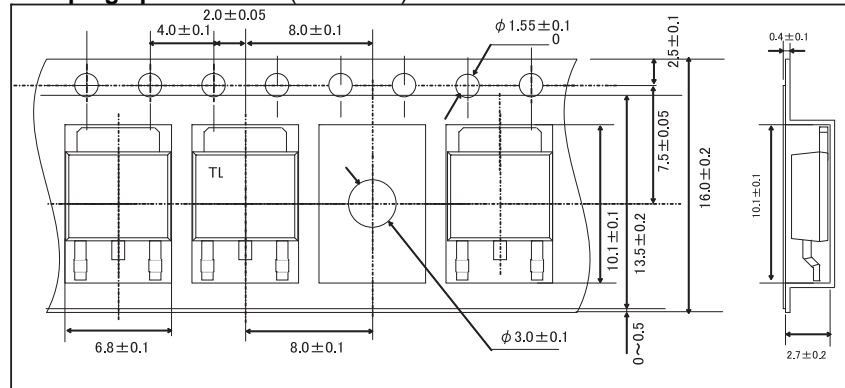
●Land size figure (Unit : mm)



●Structure



●Taping specifications (Unit : mm)



●Absolute maximum ratings (Ta=25°C)

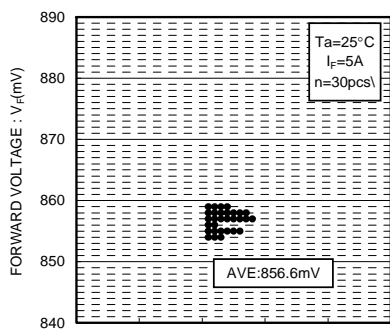
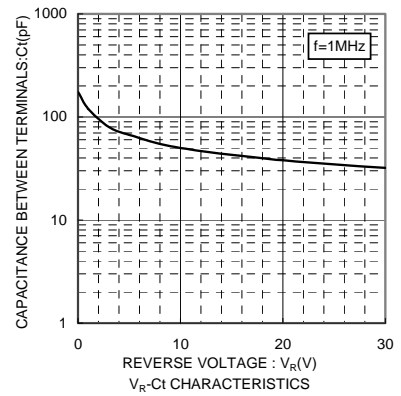
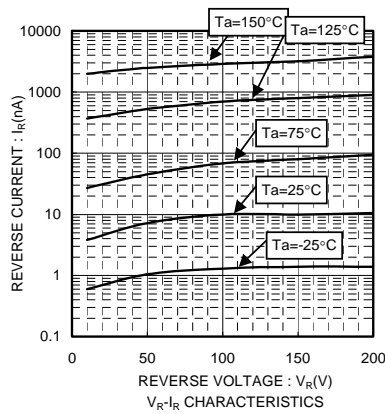
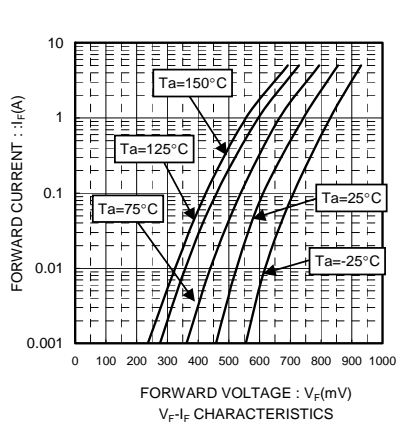
Parameter	Symbol	Limits	Unit
Reverse voltage (repetitive peak)	V_{RM}	200	V
Reverse voltage (DC)	V_R	200	V
Average rectified forward current (*1)	I_o	5	A
Forward current surge peak (60Hz / 1cyc)(*1)	I_{FSM}	40	A
Junction temperature	T_j	150	°C
Storage temperature	T_{stg}	-55 to +150	°C

(*1)Business frequencies, Rating of R-load, 1/2 I_o per diode, $T_c=128^\circ\text{C}$

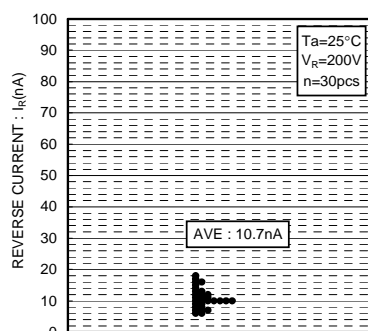
●Electrical characteristics (Ta=25°C)

Parameter	Symbol	Min.	Typ.	Max.	Unit	Conditions
Forward voltage	V_F	-	0.86	0.92	V	$I_F=5\text{A}$
Reverse current	I_R	-	0.015	1	μA	$V_R=200\text{V}$
Reverse recovery time	t_{rr}	-	15	30	ns	$I_F=0.5\text{A}, I_R=1\text{A}, I_{rr}=0.25 \cdot I_R$

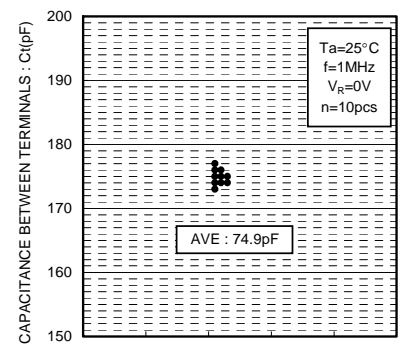
●Electrical characteristic curves



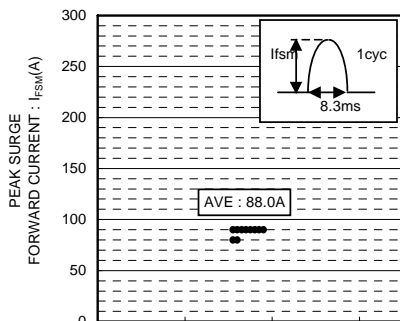
V_F DISPERSION MAP



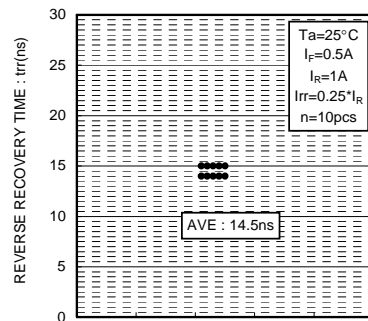
I_R DISPERSION MAP



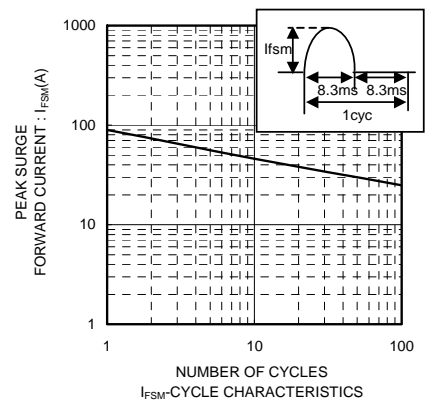
C_t DISPERSION MAP

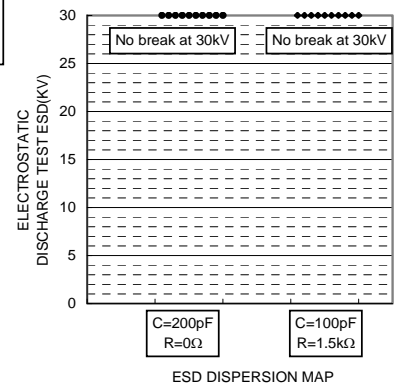
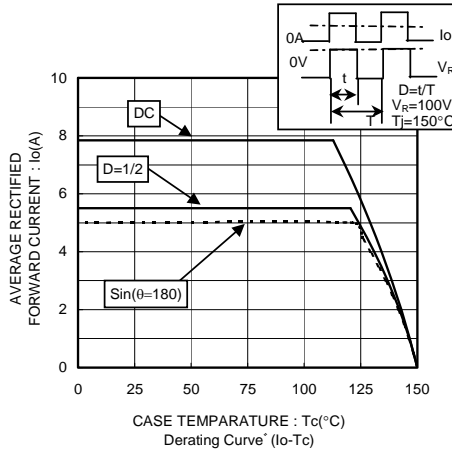
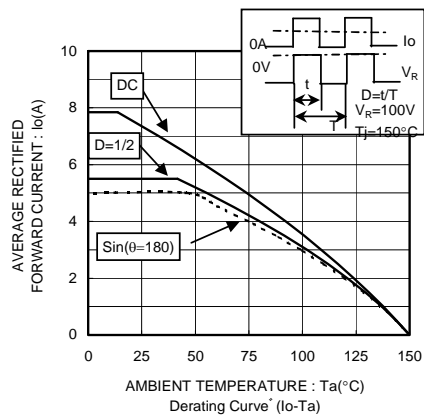
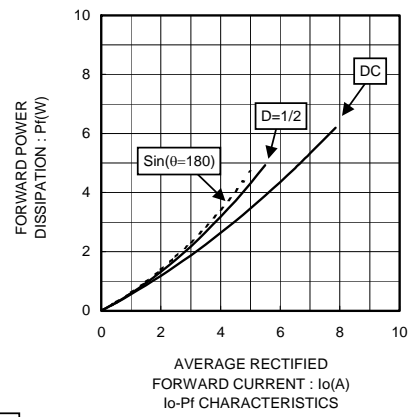
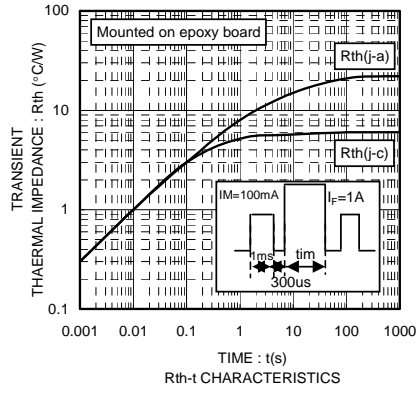
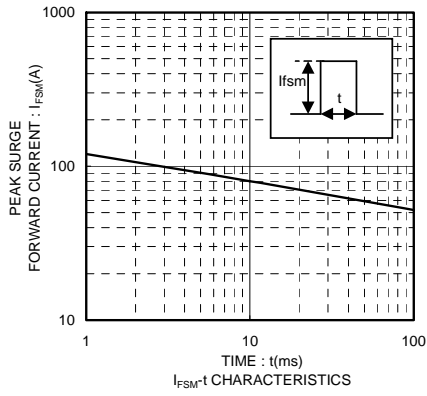


I_{FSM} DISPERSION MAP



t_{rr} DISPERSION MAP





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