

Diodes

Fast recovery diodes

RF601B2D

●Applications

General rectification

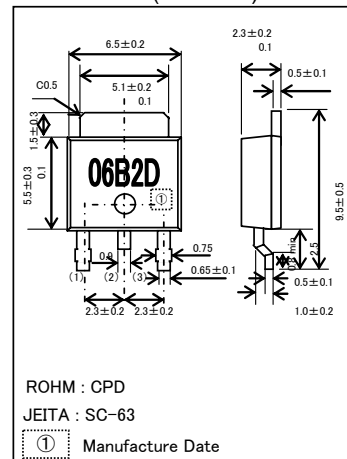
●Features

- 1) Power mold type. (CPD)
- 2) Ultra Low V_f
- 3) Very fast recovery
- 4) Low switching loss

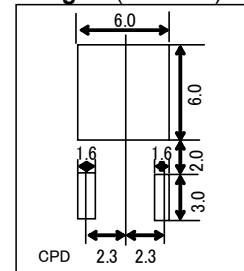
●Construction

Silicon epitaxial planer

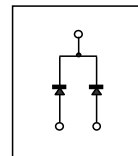
●Dimensions (Unit : mm)



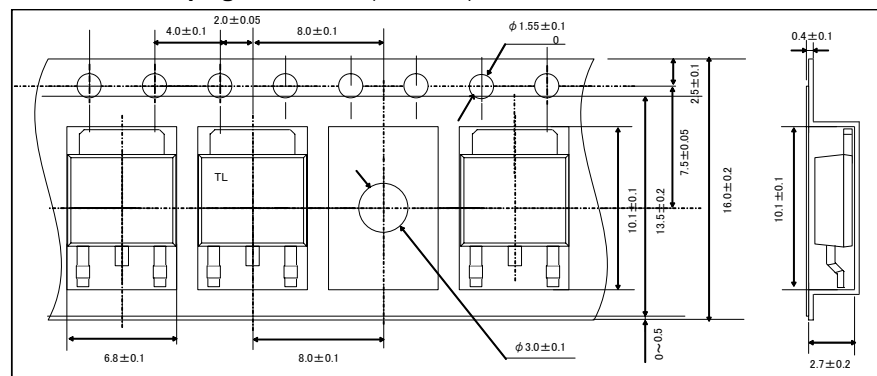
●Land size figure (Unit : mm)



●Structure



●Taping dimensions (Unit : mm)

●Absolute maximum ratings ($T_a=25^\circ\text{C}$)

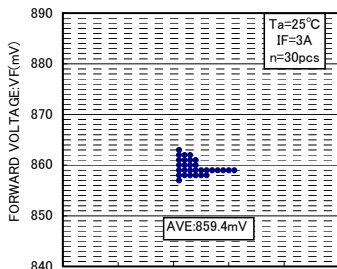
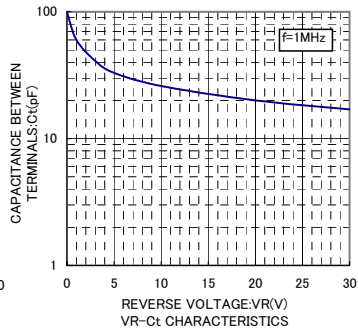
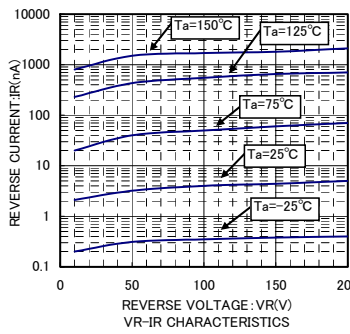
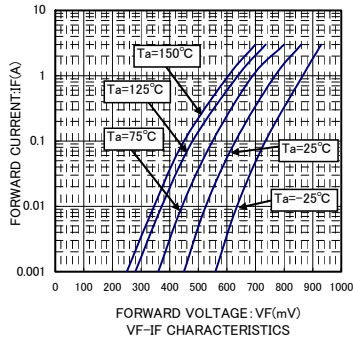
Parameter	Symbol	Limits	Unit
Reverse voltage (repetitive peak)	V_{RM}	200	V
Reverse voltage (DC)	V_R	200	V
Average rectified forward current (*1)	I_o	6	A
Forward current surge peak (60Hz·1cyc)	I_{FSM}	40	A
Junction temperature	T_j	150	$^\circ\text{C}$
Storage temperature	T_{stg}	-55 to +150	$^\circ\text{C}$

(*1) Business frequencies, Rating of R-load, $T_c=128^\circ\text{C}$, 1/2 I_o per diode●Electrical characteristic ($T_a=25^\circ\text{C}$)

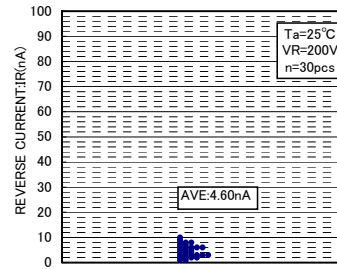
Parameter	Symbol	Min.	Typ.	Max.	Unit	Conditions
Forward voltage	V_F	-	0.87	0.93	V	$I_F=3A$
Reverse current	I_R	-	0.01	10	μA	$V_R=200V$
Reverse recovery time	t_{rr}	-	14	25	ns	$I_F=0.5A, I_R=1A, I_{rr}=0.25 \cdot I_R$
Thermal impedance	θ_{jc}	-	-	6.0	$^\circ\text{C/W}$	JUNCTION TO CASE

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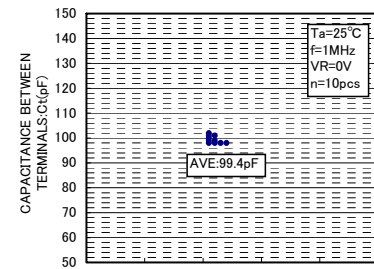
●Electrical characteristic curves



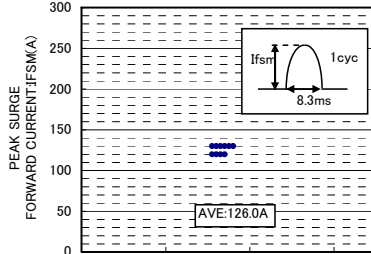
VF DISPERSION MAP



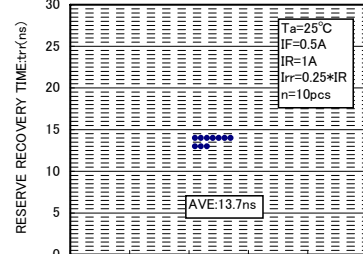
IR DISPERSION MAP



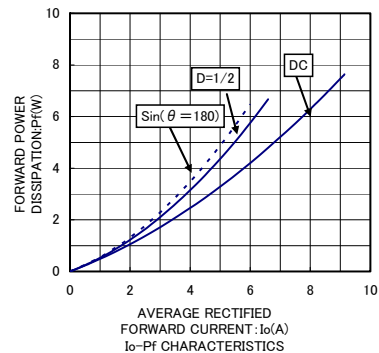
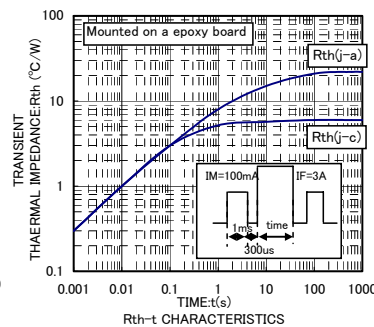
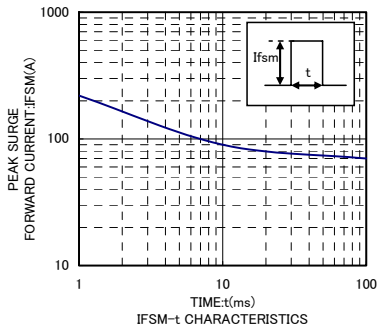
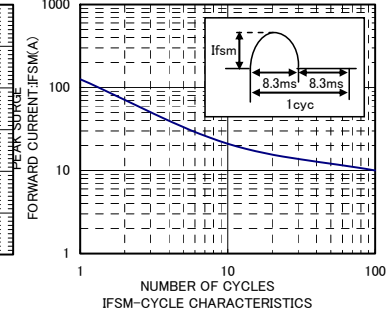
C_t DISPERSION MAP



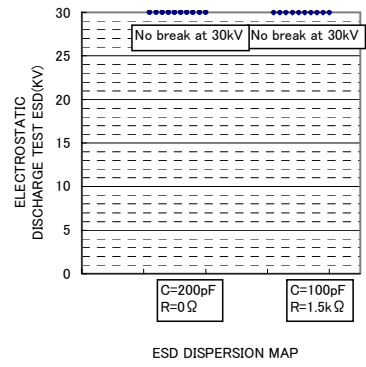
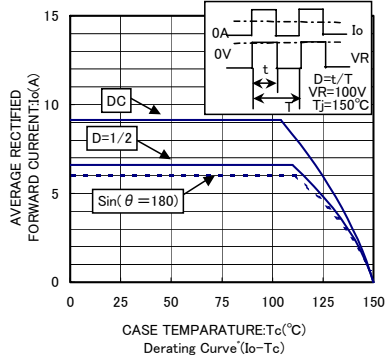
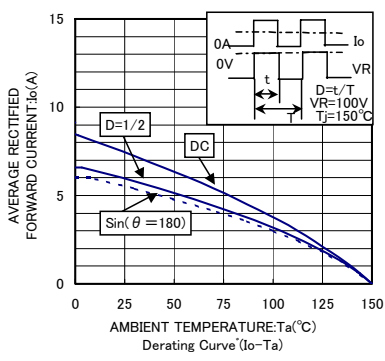
IFSM DISPERSION MAP



t_{rr} DISPERSION MAP



Diodes



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