

Fast recovery diodes

RF601B2D

● **Applications**

General rectification

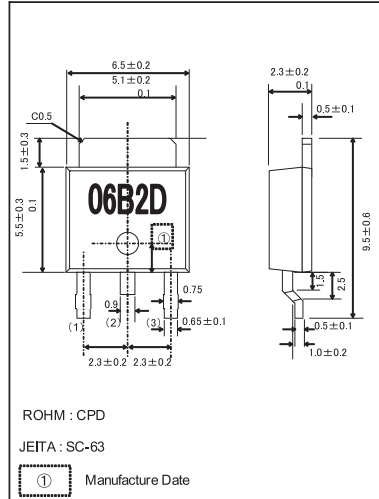
● **Features**

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

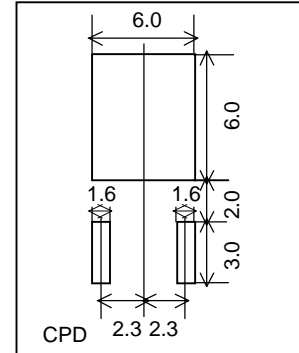
● **Construction**

Silicon epitaxial planar

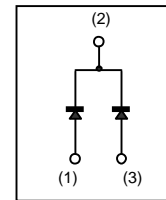
● **Dimensions (Unit : mm)**



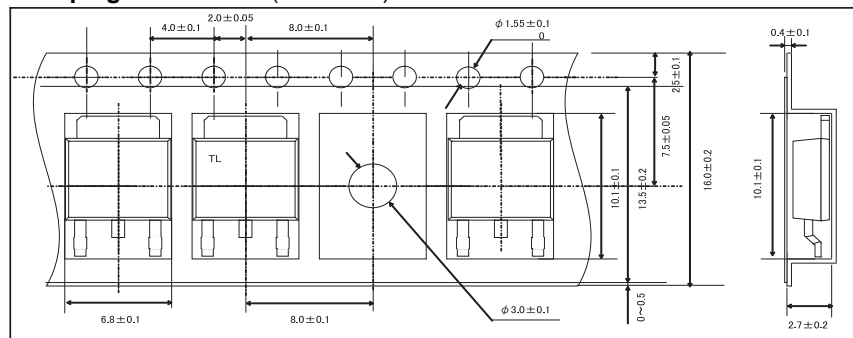
● **Land size figure (Unit : mm)**



● **Structure**



● **Taping dimensions (Unit : mm)**



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

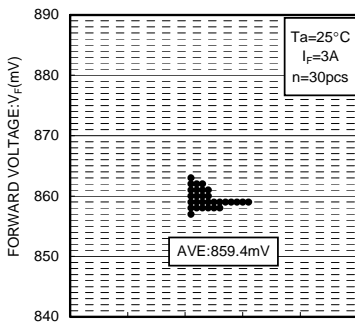
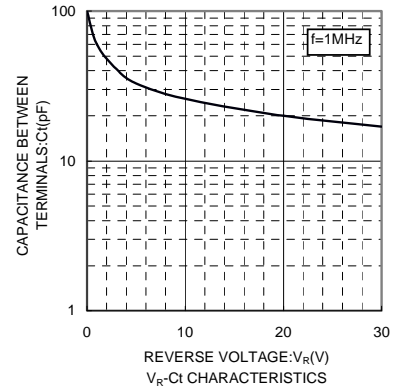
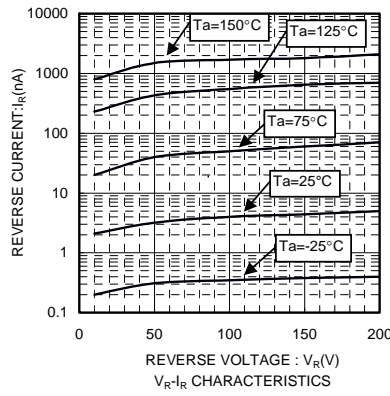
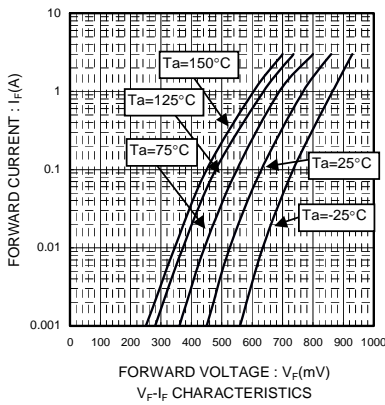
Parameter	Symbol	Limits	Unit
Reverse voltage (repetitive peak)	V_{RM}	200	V
Reverse voltage (DC)	V_R	200	V
Average rectified forward current (*1)	I_o	6	A
Forward current surge peak (60Hz/1cyc)	I_{FSM}	40	A
Junction temperature	T_j	150	°C
Storage temperature	T_{stg}	-55 to +150	°C

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

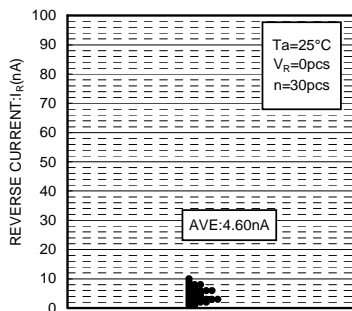
● **Electrical characteristic (Ta=25°C)**

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	°C/W	JUNCTION TO CASE

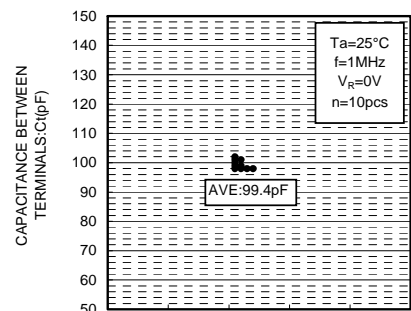
●Electrical characteristic curves



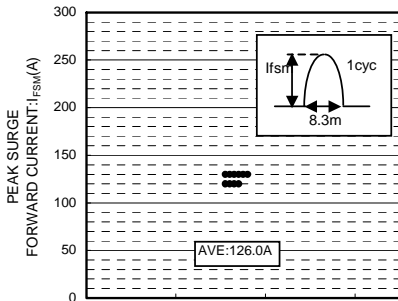
V_F DISPERSION MAP



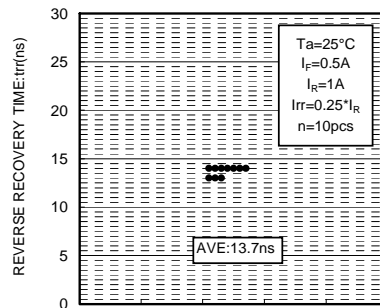
I_R DISPERSION MAP



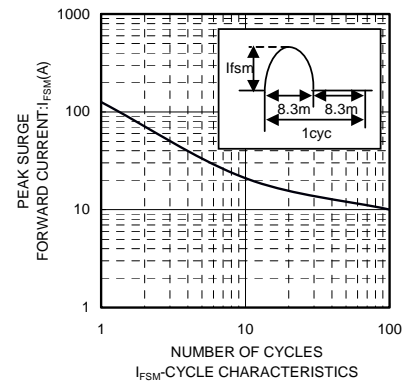
C_t DISPERSION MAP

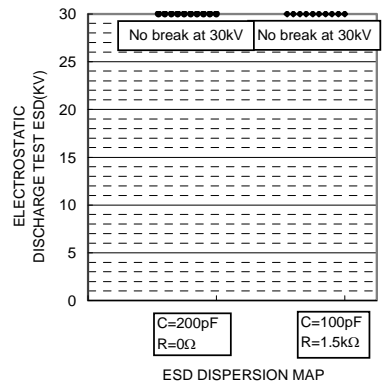
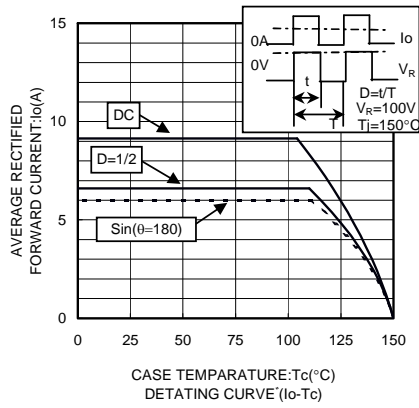
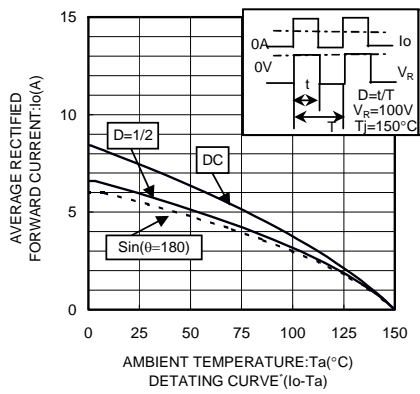
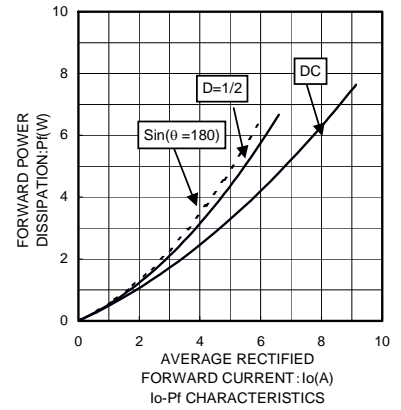
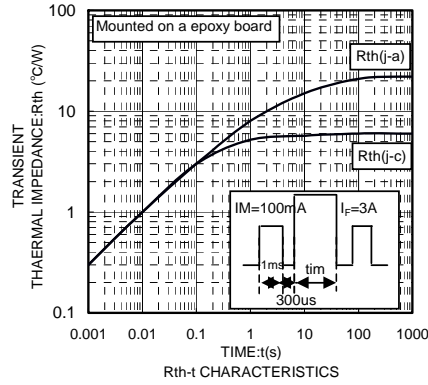
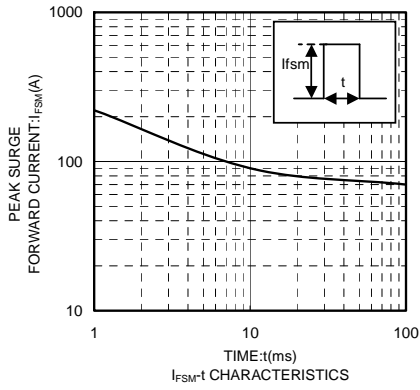


I_{FSM} DISPERSION MAP



t_{rr} DISPERSION MAP





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