

# Fast recovery diodes

## RF601B2D

●Applications

General rectification

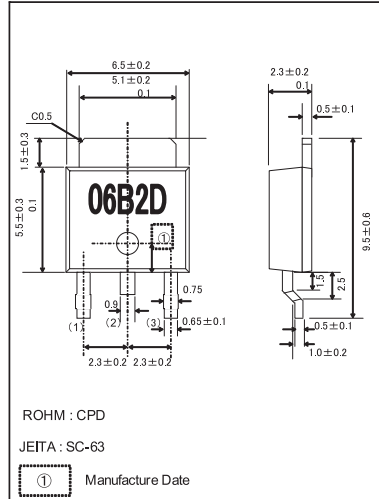
●Features

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

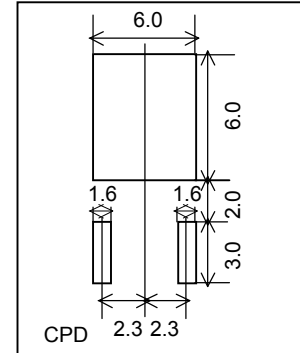
●Construction

Silicon epitaxial planer

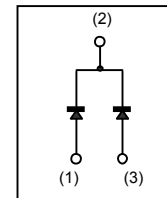
●Dimensions (Unit : mm)



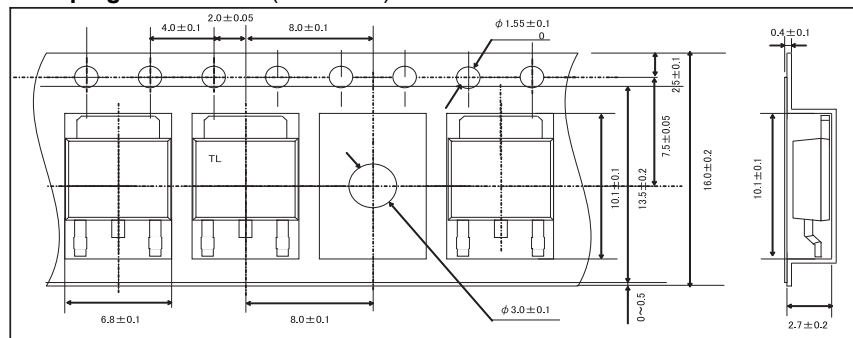
●Land size figure (Unit : mm)



●Structure



●Taping dimensions (Unit : mm)



●Absolute maximum ratings (Ta=25°C)

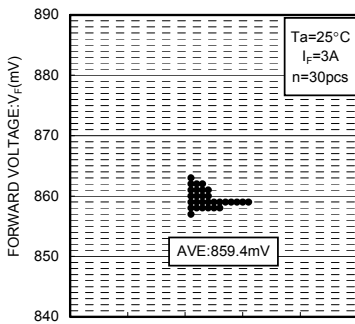
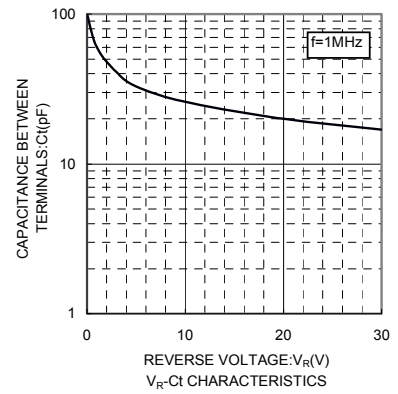
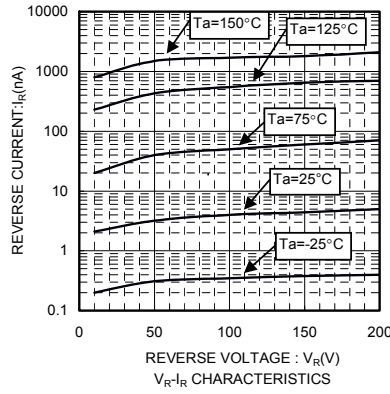
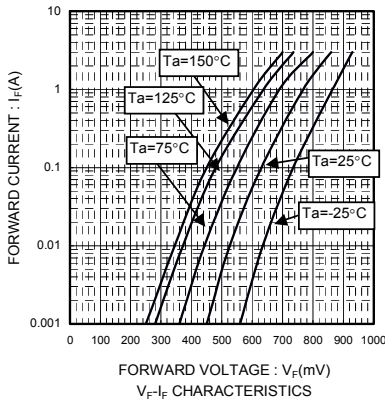
Parameter	Symbol	Limits	Unit
Reverse voltage (repetitive peak)	$V_{RM}$	200	V
Reverse voltage (DC)	$V_R$	200	V
Average rectified forward current (*1)	$I_o$	6	A
Forward current surge peak (60Hz/1cyc)	$I_{FSM}$	40	A
Junction temperature	$T_j$	150	°C
Storage temperature	$T_{stg}$	-55 to +150	°C

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

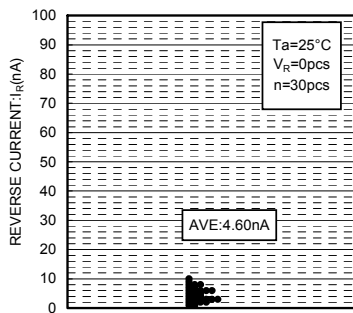
●Electrical characteristic (Ta=25°C)

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	$\mu A$	$V_R=200V$
Reverse recovery time	$t_{rr}$	-	14	25	ns	$I_F=0.5A, I_R=1A, I_{rr}=0.25*I_R$
Thermal impedance	$\theta_{jc}$	-	-	6	°C/W	JUNCTION TO CASE

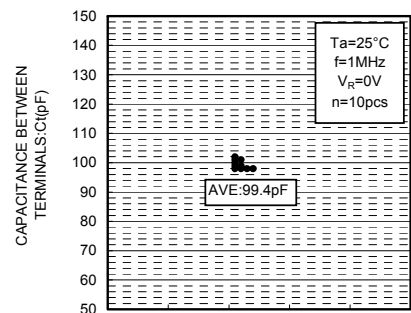
●Electrical characteristic curves



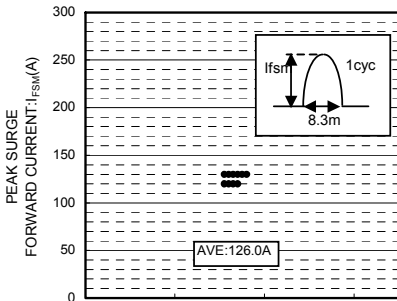
$V_F$  DISPERSION MAP



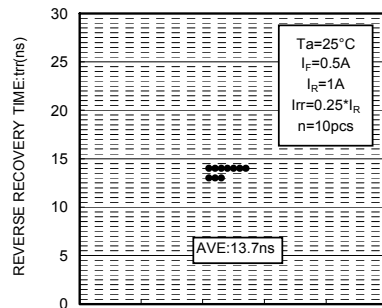
$I_R$  DISPERSION MAP



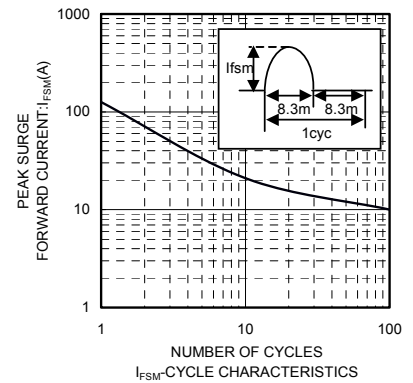
$C_t$  DISPERSION MAP



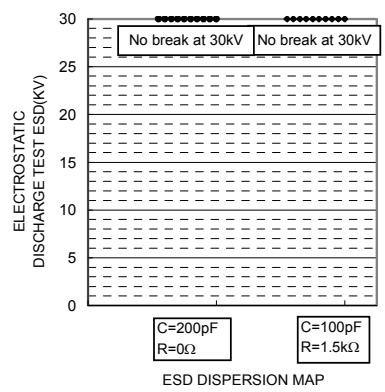
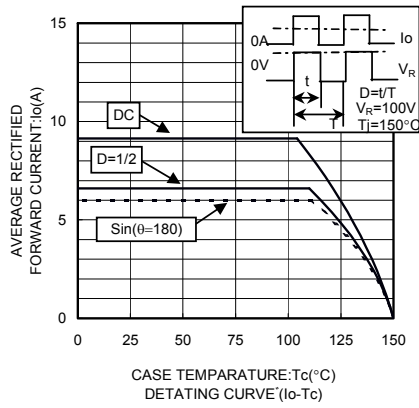
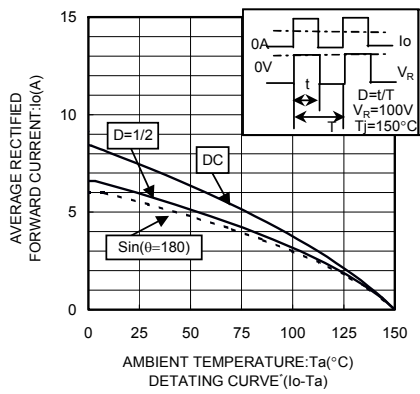
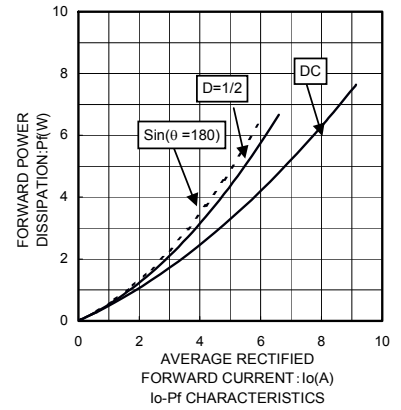
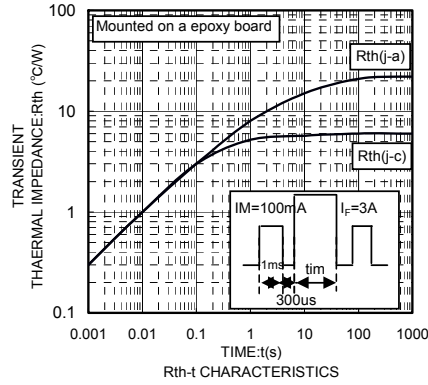
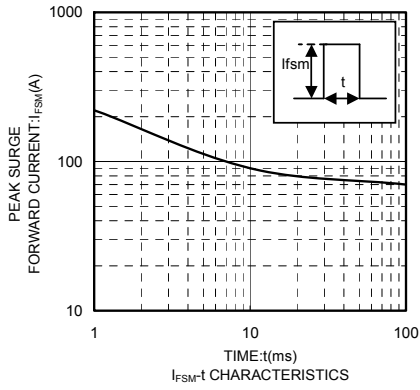
$I_{FSM}$  DISPERSION MAP



$t_{rr}$  DISPERSION MAP



$I_{FSM}$ -CYCLE CHARACTERISTICS



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