

# Fast Recovery Diode

## RF301B2S

● **Applications**

General rectification

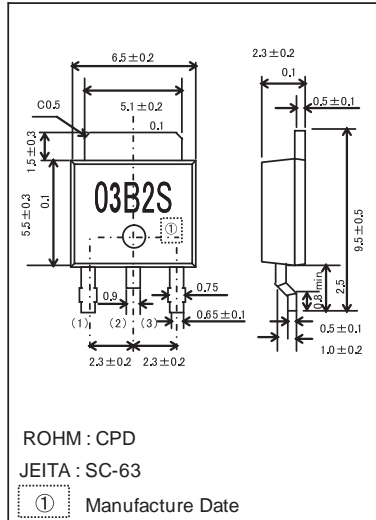
● **Features**

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

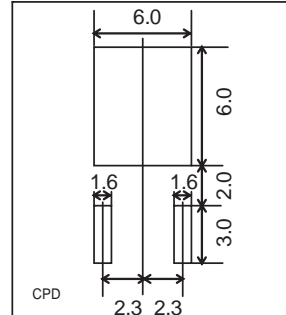
● **Construction**

Silicon epitaxial planar

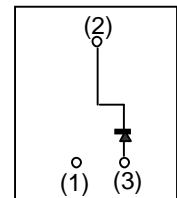
● **Dimensions**(Unit : mm)



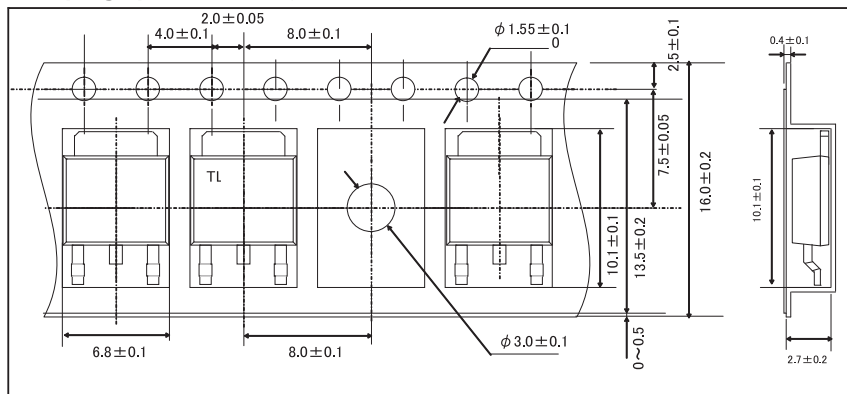
● **Land size figure**(Unit : mm)



● **Structure**



● **Taping specifications**(Unit : mm)



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

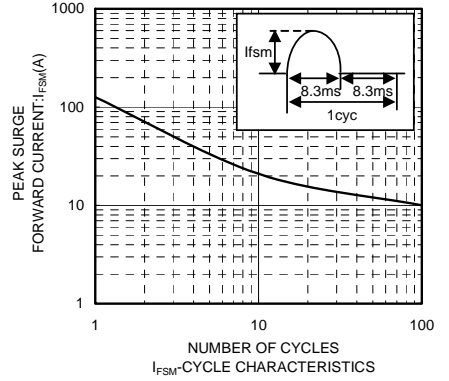
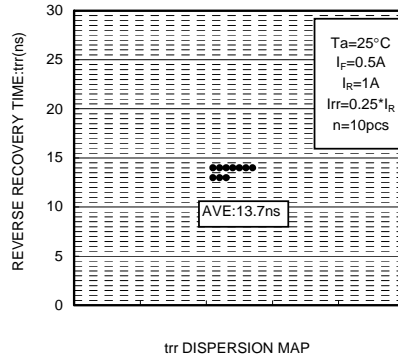
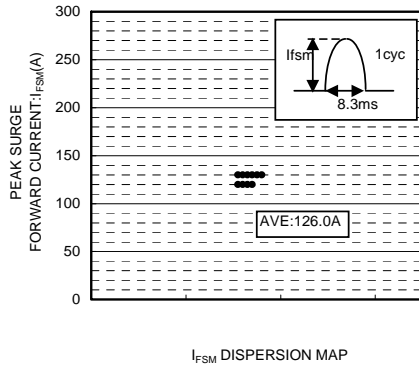
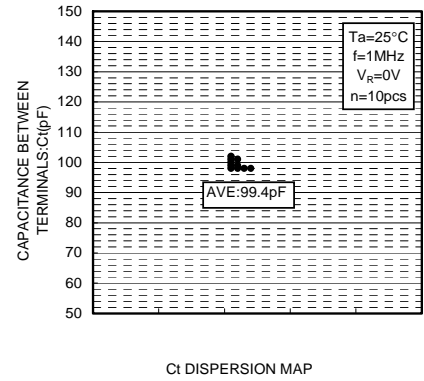
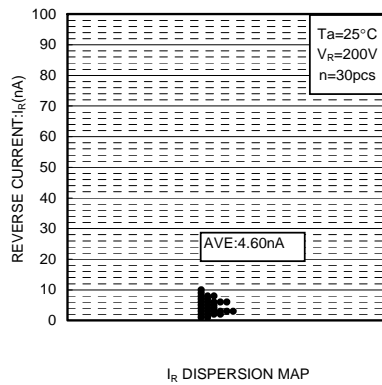
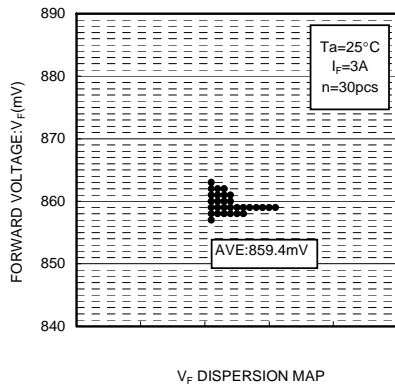
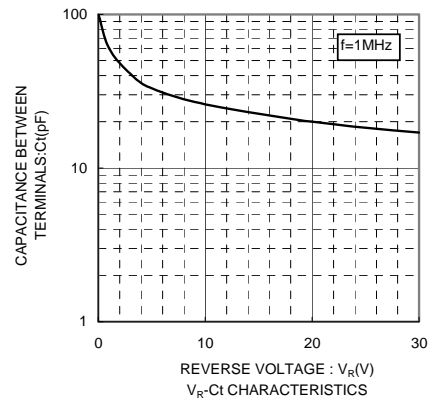
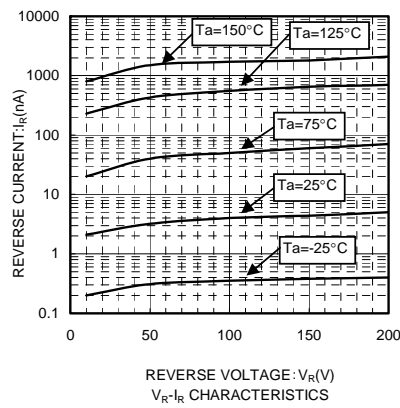
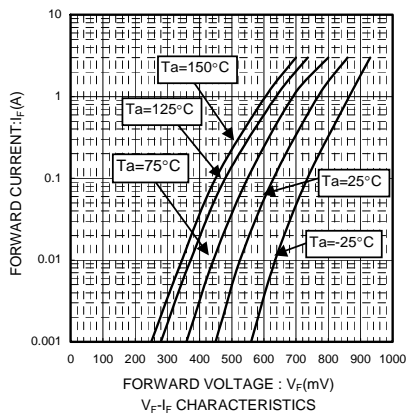
Parameter	Symbol	Limits	Unit
Reverse voltage (repetitive peak)	$V_{RM}$	200	V
Reverse voltage (DC)	$V_R$	200	V
Average rectified forward current(*1)	$I_o$	3	A
Forward current surge peak (60Hz / 1cyc)(*1)	$I_{FSM}$	40	A
Junction temperature	$T_j$	150	$^\circ\text{C}$
Storage temperature	$T_{stg}$	-55 to +150	$^\circ\text{C}$

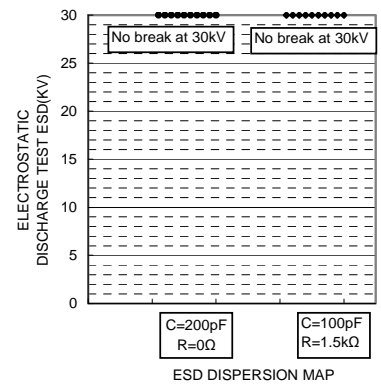
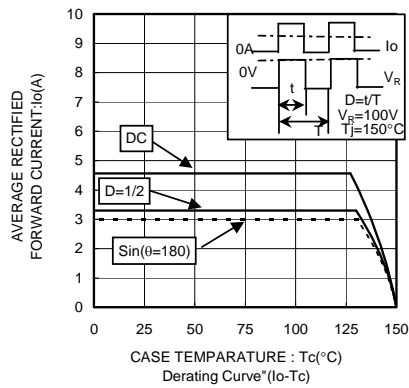
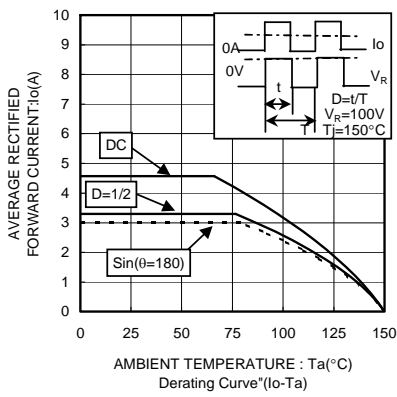
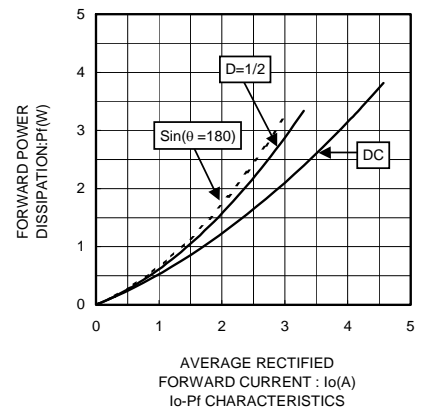
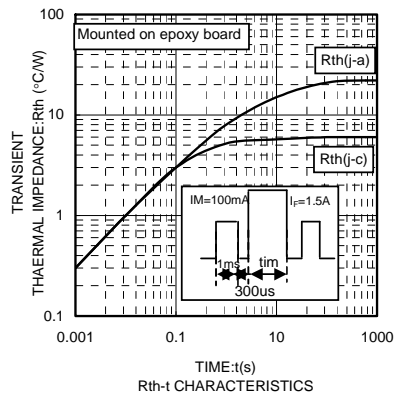
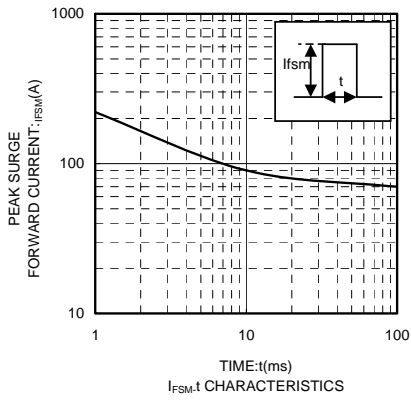
(\*1)Business frequencies, Rating of R-load,  $T_c=128^\circ\text{C MAX.}$

● **Electrical characteristics**( $T_a=25^\circ\text{C}$ )

Parameter	Symbol	Min.	Typ.	Max.	Unit	Conditions
Forward voltage	$V_F$	-	0.87	0.93	V	$I_F=3\text{A}$
Reverse current	$I_R$	-	10nA	10	$\mu\text{A}$	$V_R=200\text{V}$
Reverse recovery time	$t_{rr}$	-	14	25	ns	$I_F=0.5\text{A}, I_R=1\text{A}, I_{rr}=0.25 \cdot I_R$
Thermal impedance	$\theta_{jc}$	-	-	6	$^\circ\text{C/W}$	JUNCTION TO CASE

●Electrical characteristics curves





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