

# Fast recovery diode

## RF301B2S

### ●Applications

General rectification

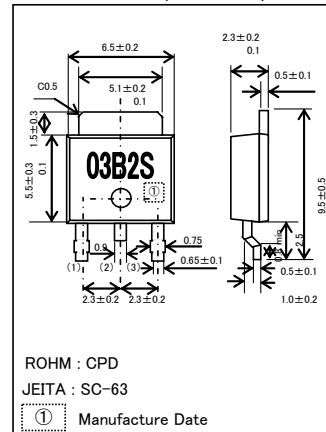
### ●Features

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

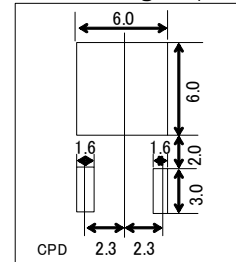
### ●Construction

Silicon epitaxial planar

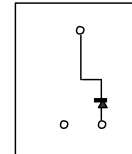
### ●Dimensions (Unit : mm)



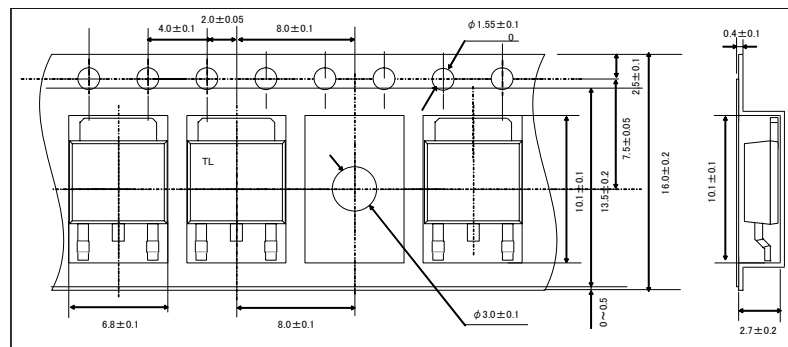
### ●Land size figure (Unit : mm)



### ●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)	$I_{FSM}$	40	A
Junction temperature	$T_j$	150	$^\circ\text{C}$
Storage temperature	$T_{stg}$	-55 to +150	$^\circ\text{C}$

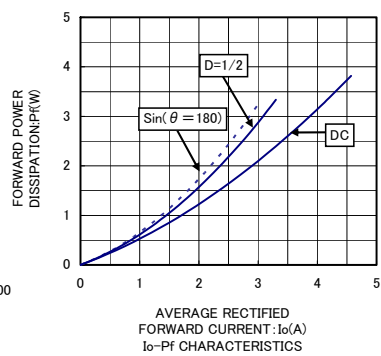
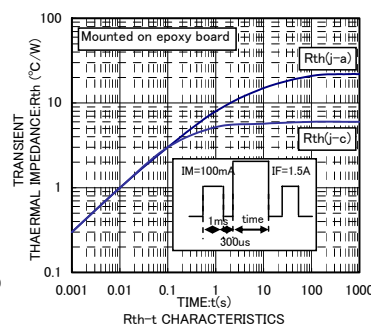
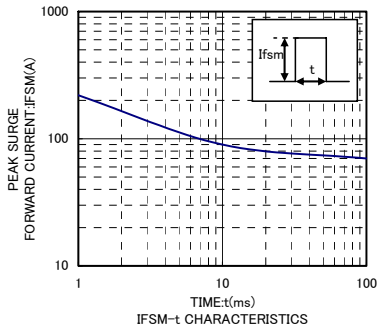
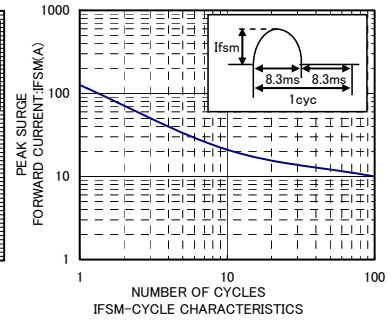
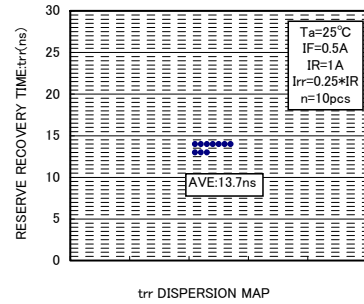
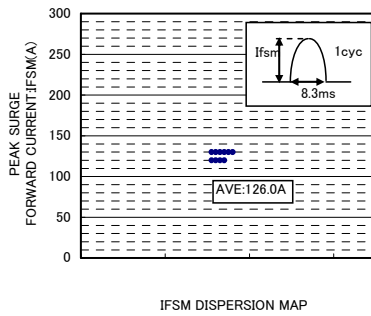
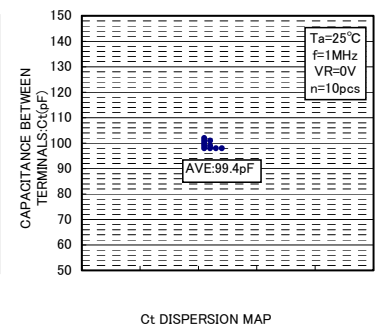
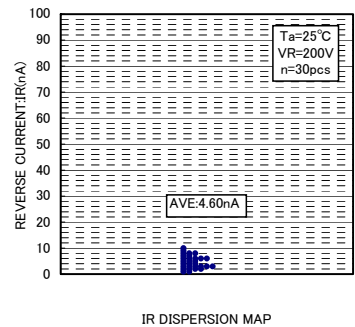
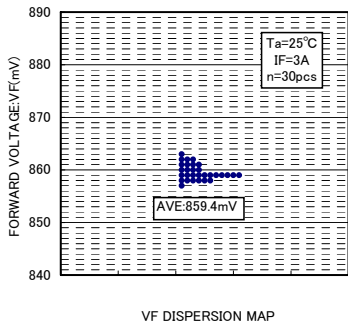
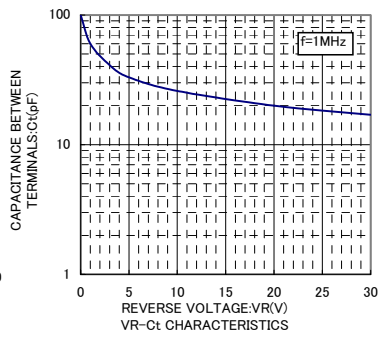
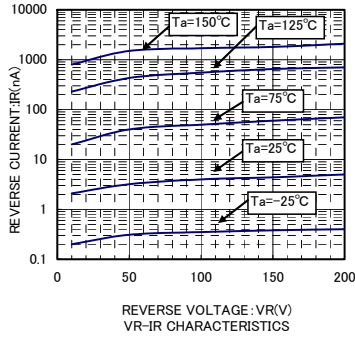
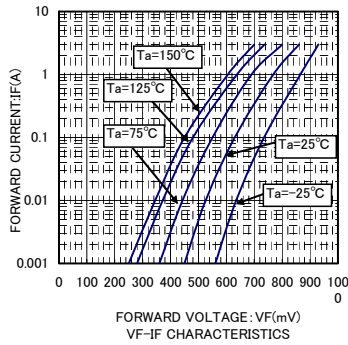
(\*1) Business frequencies, Rating of R-load,  $T_c=128^\circ\text{C}$  MAX.

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

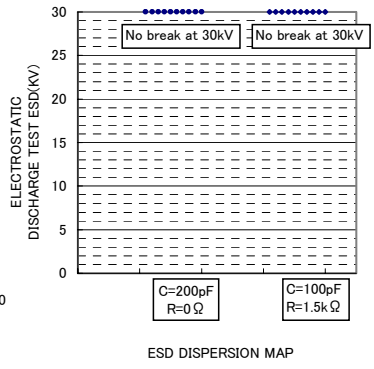
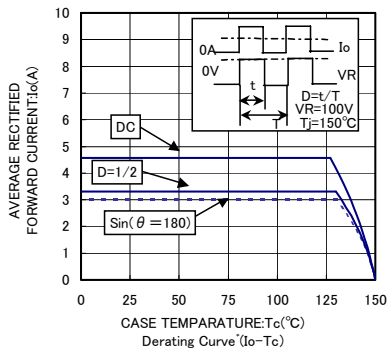
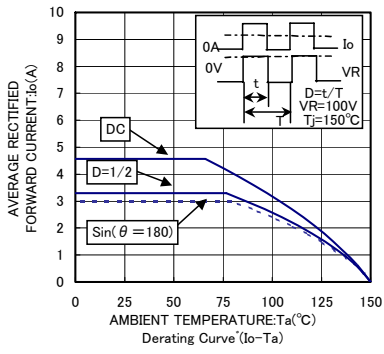
Parameter	Symbol	Min.	Typ.	Max.	Unit	Conditions
Forward voltage	$V_F$	-	0.87	0.93	V	$I_F=3\text{A}$
Reverse current	$I_R$	-	10	10	$\mu\text{A}$	$V_R=200\text{V}$
Reverse recovery time	$t_{rr}$	-	14	25	ns	$I_F=0.5\text{A}, I_R=1\text{A}, I_{rr}=0.25 \cdot I_R$
Thermal impedance	$\theta_{jc}$	-	-	6	$^\circ\text{C}/\text{W}$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

Diodes

●Electrical characteristic curves (Ta=25°C)



Diodes



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