

# Fast Recovery Diode

## RF301B2S

**●Applications**

General rectification

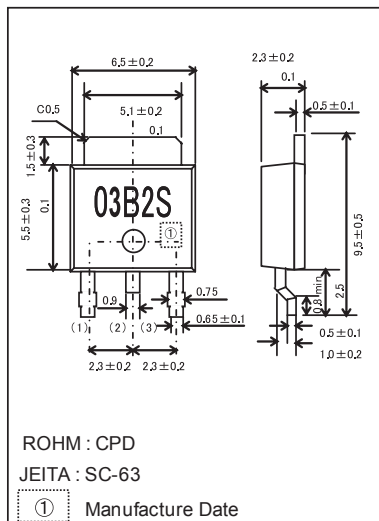
**●Features**

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

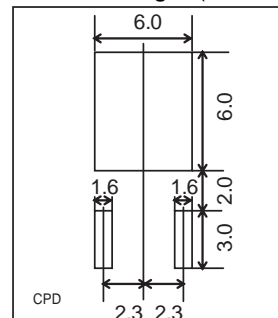
**●Construction**

Silicon epitaxial planar

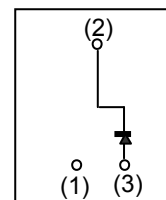
**●Dimensions(Unit : mm)**



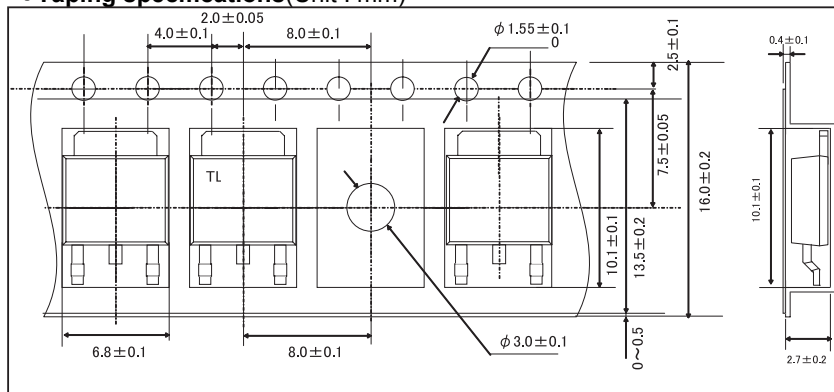
**●Land size figure(Unit : mm)**



**●Structure**



**●Taping specifications(Unit : mm)**



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

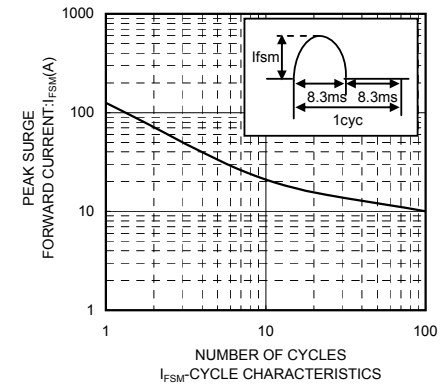
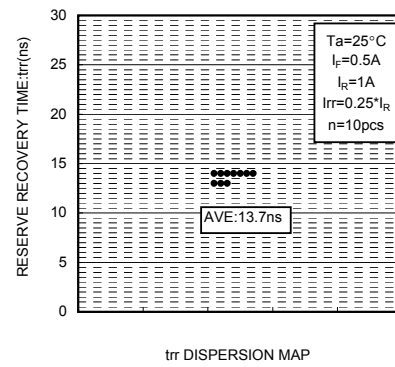
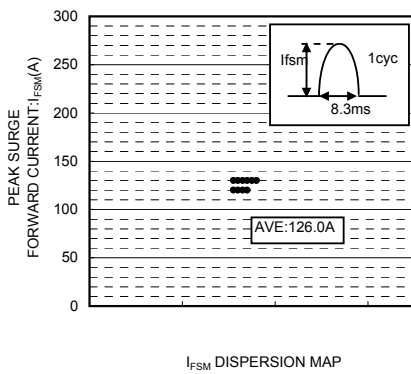
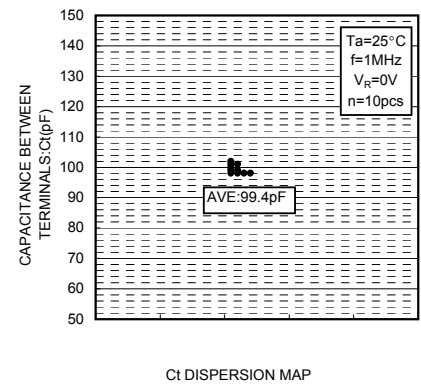
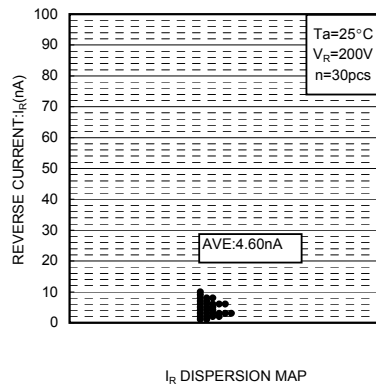
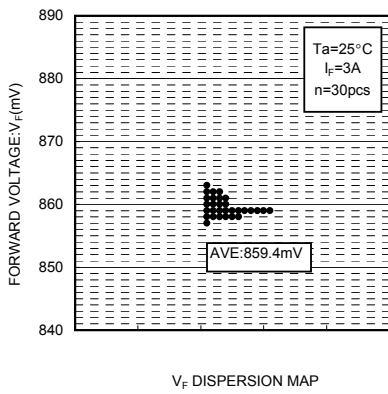
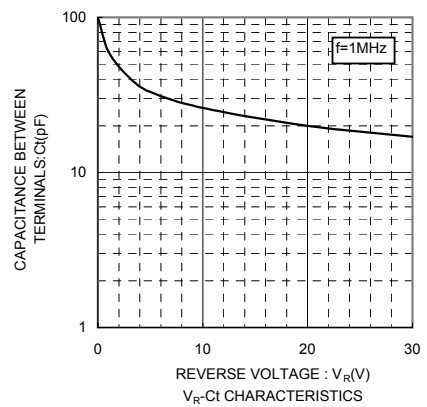
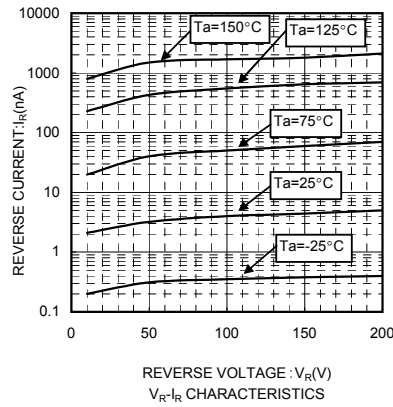
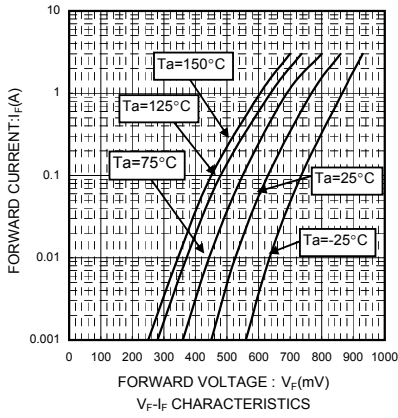
Parameter	Symbol	Limits	Unit
Reverse voltage (repetitive peak)	$V_{RM}$	200	V
Reverse voltage (DC)	$V_R$	200	V
Average rectified forward current(*1)	$I_o$	3	A
Forward current surge peak (60Hz / 1cyc)(*1)	$I_{FSM}$	40	A
Junction temperature	$T_j$	150	°C
Storage temperature	$T_{stg}$	-55 to +150	°C

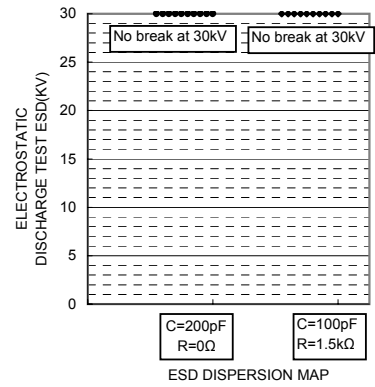
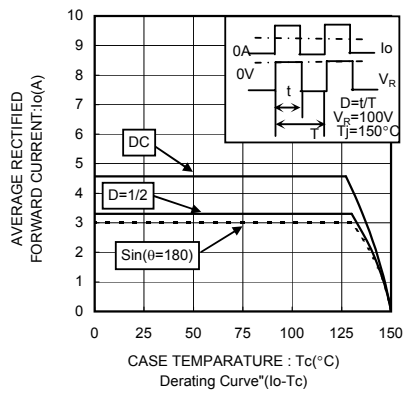
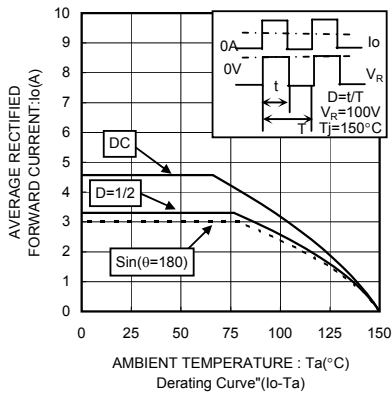
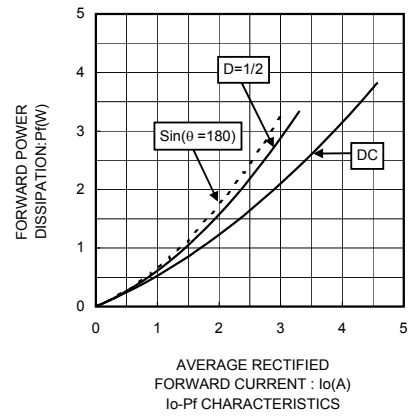
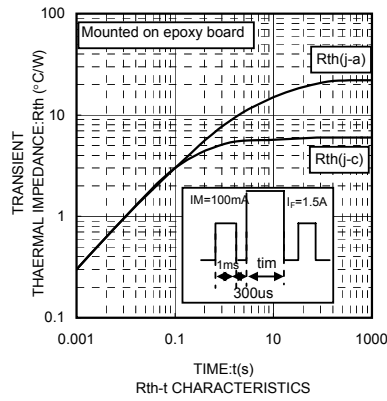
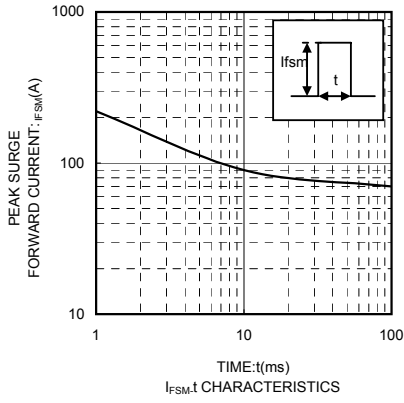
(\*1)Business frequencies, Rating of R-load,  $T_c=128^\circ\text{C MAX.}$

**●Electrical characteristics (Ta=25°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	°C/W	JUNCTION TO CASE

●Electrical characteristics curves





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