

## Fast recovery diodes

## RF1001T2D

## ●Applications

General rectification

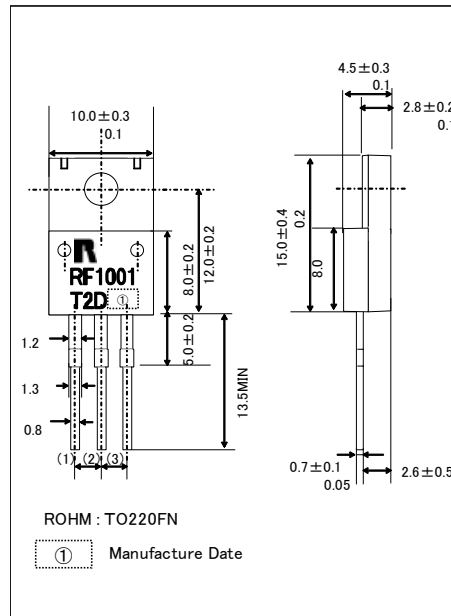
## ●Features

- 1) Cathode common type.  
(TO-220)
- 2) Ultra Low  $V_F$
- 3) Very fast recovery
- 4) Low switching loss

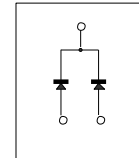
## ●Construction

Silicon epitaxial planar

## ●Dimensions (Unit : mm)



## ●Structure

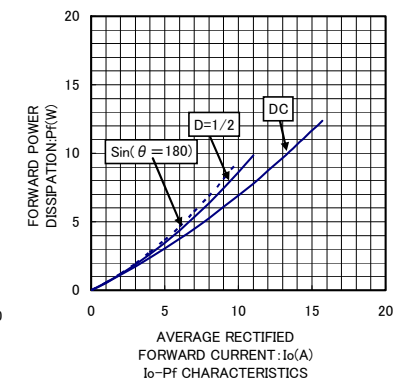
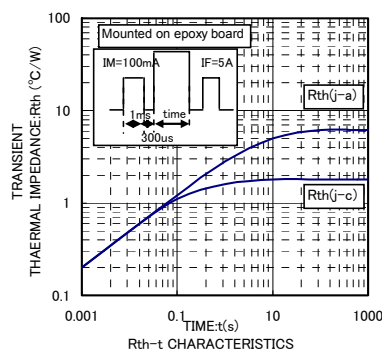
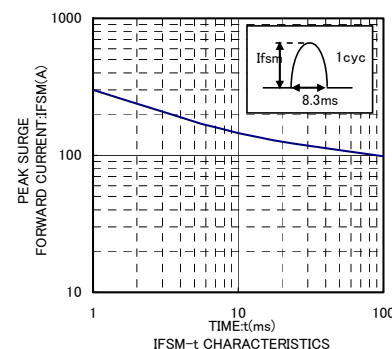
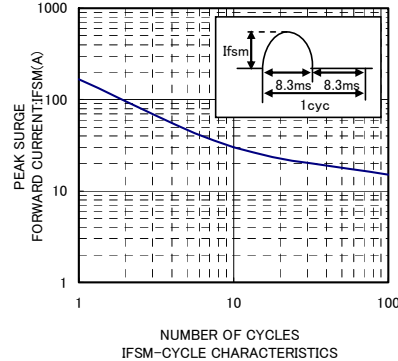
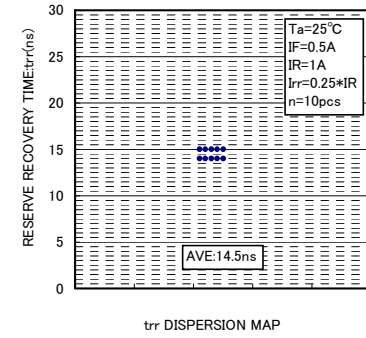
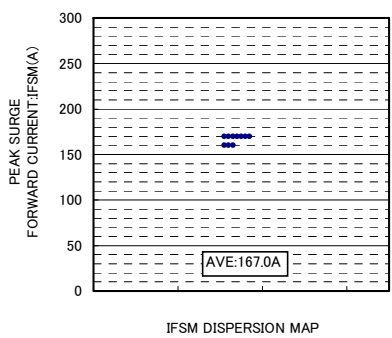
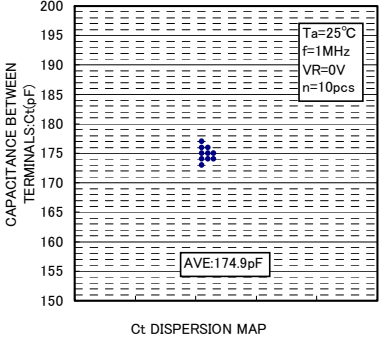
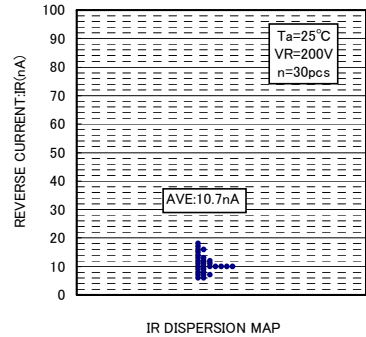
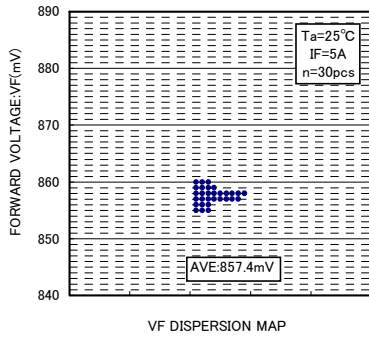
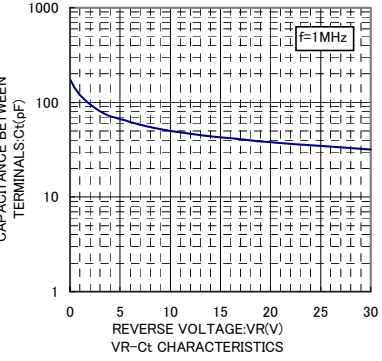
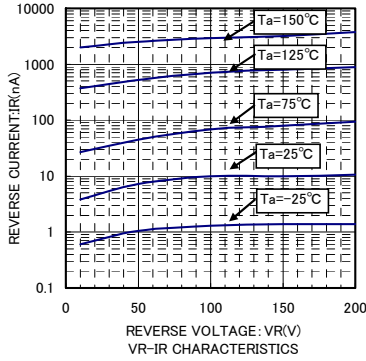
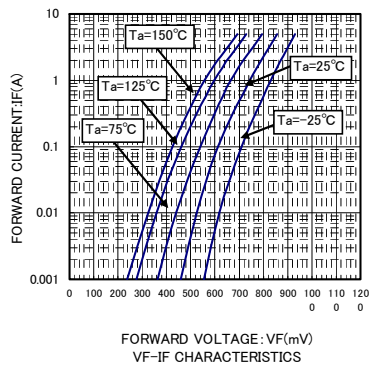
●Absolute maximum ratings ( $T_a=25^\circ\text{C}$ )

Parameter	Symbol	Limits	Unit
Reverse voltage (repetitive peak)	$V_{RM}$	200	V
Reverse voltage (DC)	$V_R$	200	V
Average rectified forward current (*1)	$I_o$	10	A
Forward current surge peak (60Hz·1cyc)	$I_{FSM}$	80	A
Junction temperature	$T_j$	150	$^\circ\text{C}$
Storage temperature	$T_{stg}$	-55 to +150	$^\circ\text{C}$

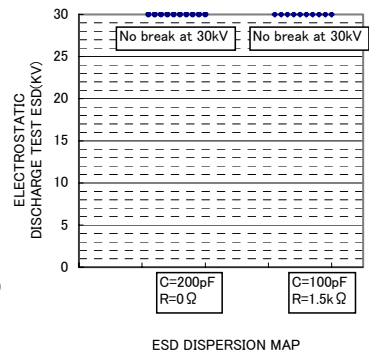
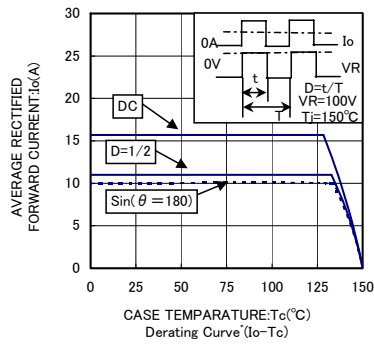
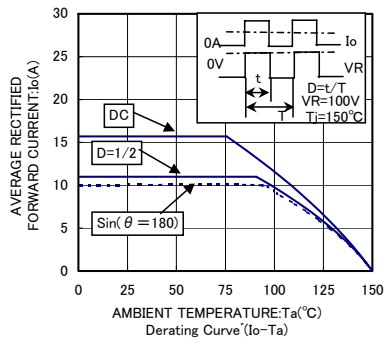
(\*1)Business frequencies, Rating of R-load,  $T_c=126^\circ\text{C}$ . 1/2  $I_o$  per diode●Electrical characteristic ( $T_a=25^\circ\text{C}$ )

Parameter	Symbol	Min.	Typ.	Max.	Unit	Conditions
Forward voltage	$V_F$	-	0.87	0.93	V	$I_F=5\text{A}$
Reverse current	$I_R$	-	0.01	10	$\mu\text{A}$	$V_R=200\text{V}$
Reverse recovery time	$t_{rr}$	-	15	30	ns	$I_F=0.5\text{A}, I_R=1\text{A}, I_{rr}=0.25 \cdot I_R$
Thermal impedance	$\theta_{jc}$	-	-	2.5	$^\circ\text{C}/\text{W}$	JUNCTION TO CASE

●Electrical characteristic curves



Diodes



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