

Fast recovery diodes

RF1001T2D

●Applications

General rectification

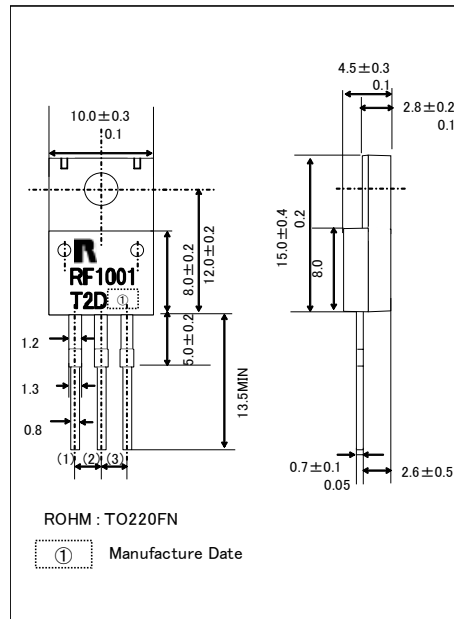
●Features

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

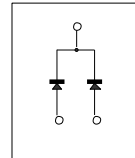
●Construction

Silicon epitaxial planar

●Dimensions (Unit : mm)



●Structure

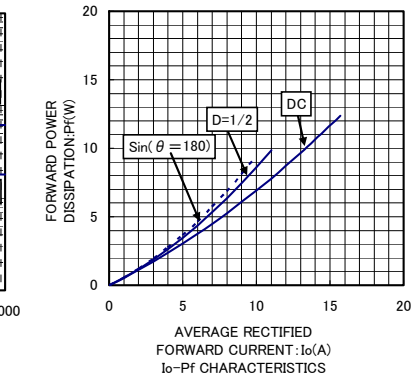
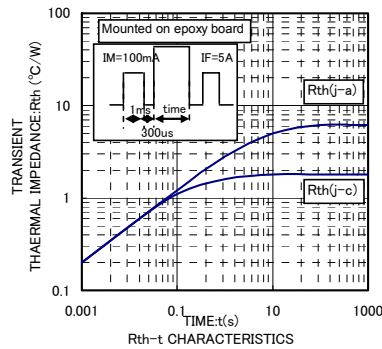
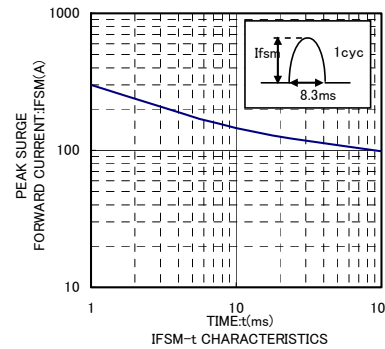
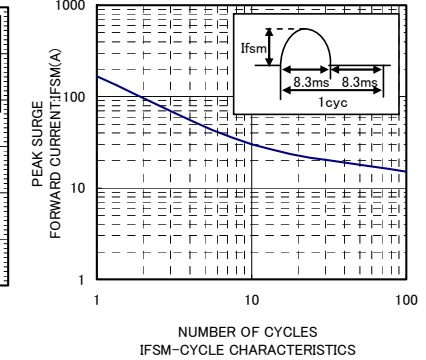
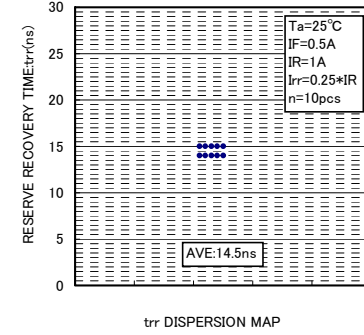
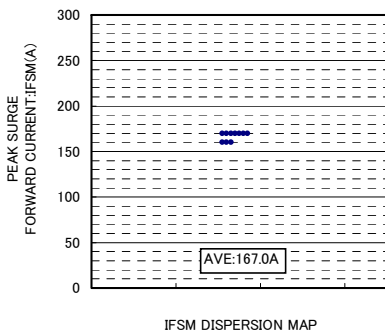
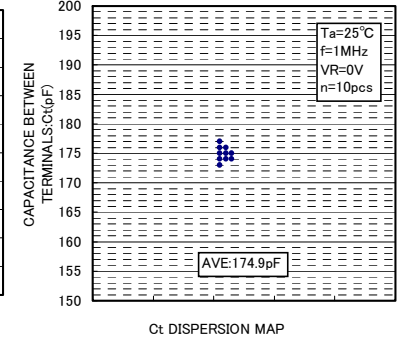
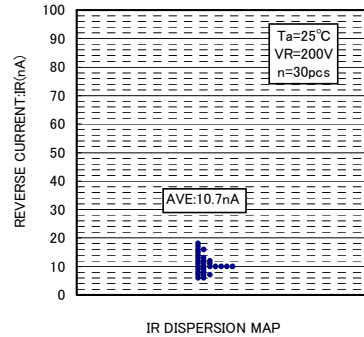
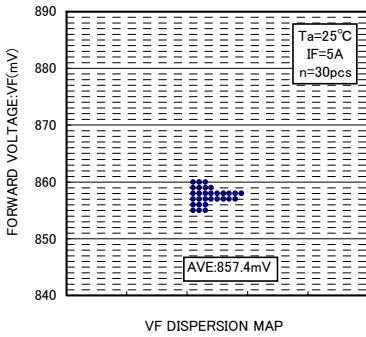
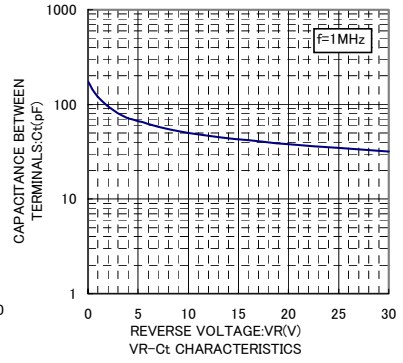
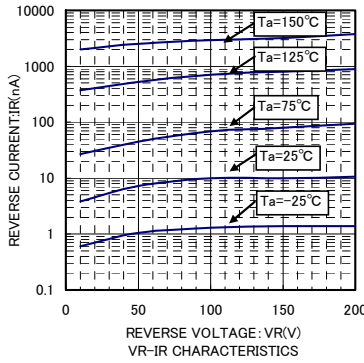
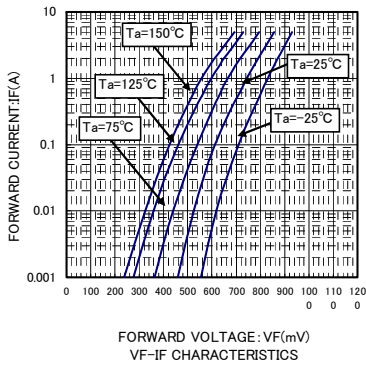
●Absolute maximum ratings ($T_a=25^\circ\text{C}$)

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	$^\circ\text{C}$

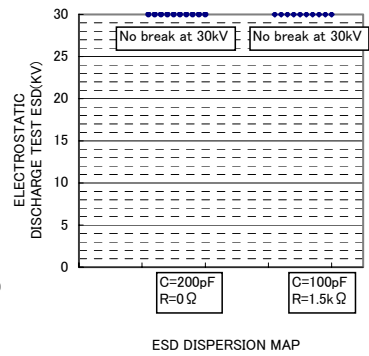
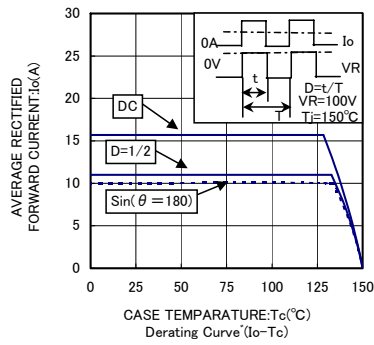
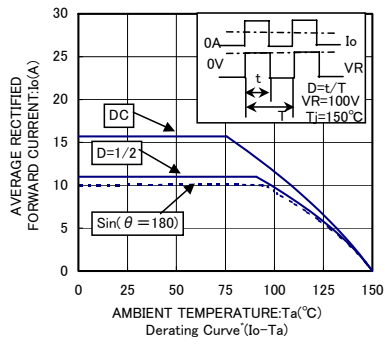
(*1)Business frequencies, Rating of R-load, $T_c=126^\circ\text{C}$. 1/2 I_o per diode●Electrical characteristic ($T_a=25^\circ\text{C}$)

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	μA	$V_R=200\text{V}$
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	θ_{jc}	-	-	2.5	$^\circ\text{C}/\text{W}$	JUNCTION TO CASE

●Electrical characteristic curves



Diodes



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