

●Applications

General rectification

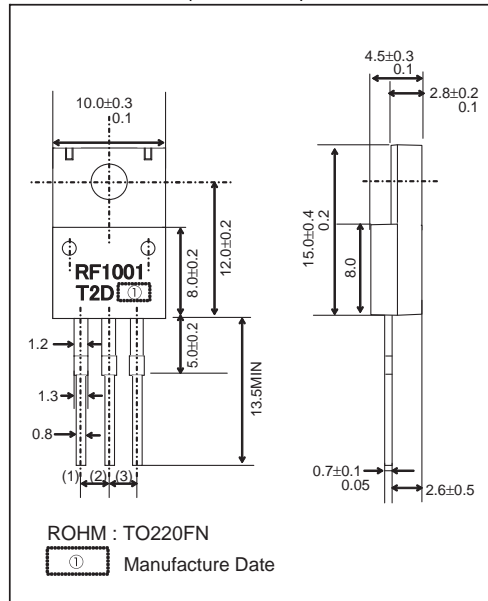
●Features

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

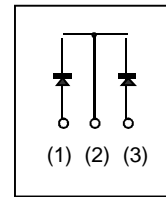
●Construction

Silicon epitaxial planar

●Dimensions (Unit : mm)



●Structure



●Absolute maximum ratings (Ta=25°C)

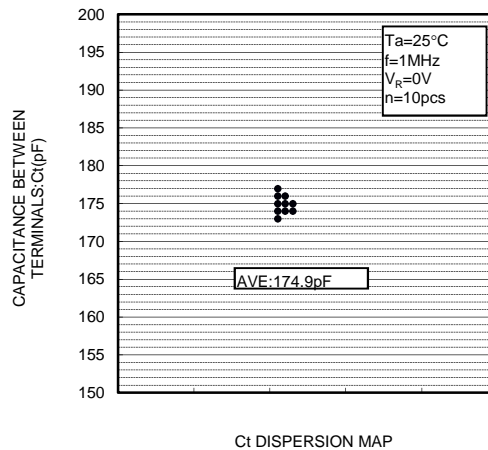
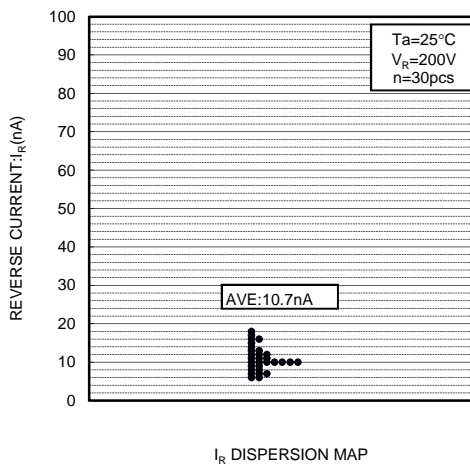
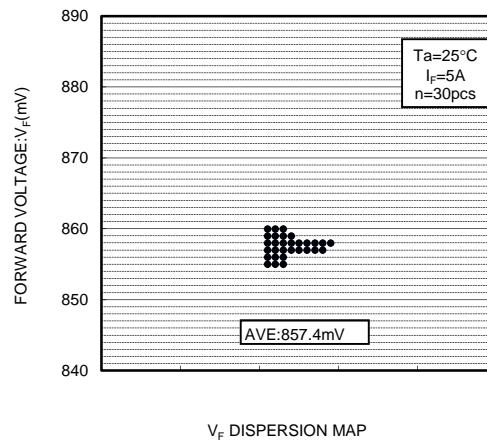
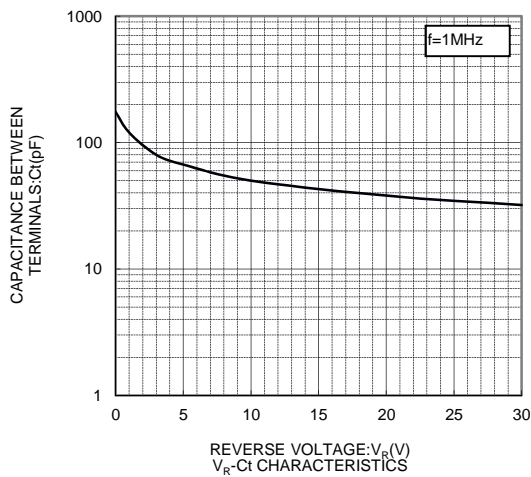
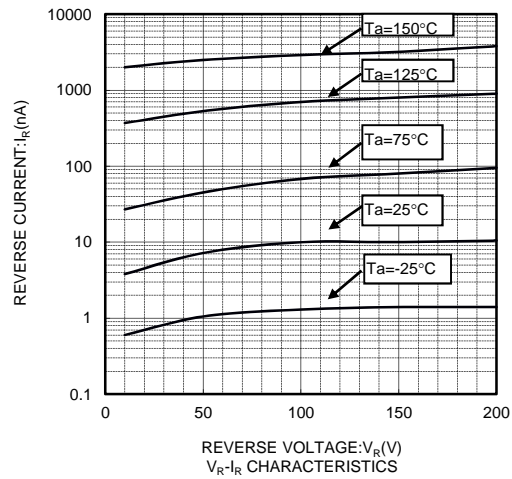
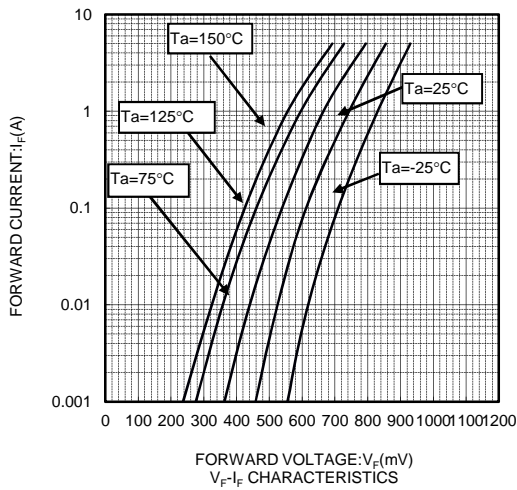
Parameter	Symbol	Limits	Unit
Reverse voltage (repetitive peak)	V_{RM}	200	V
Reverse voltage (DC)	V_R	200	V
Average rectified forward current (*1)	I_o	10	A
Forward current surge peak (60Hz/1cyc)	I_{FSM}	80	A
Junction temperature	T_j	150	°C
Storage temperature	T_{stg}	-55 to +150	°C

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

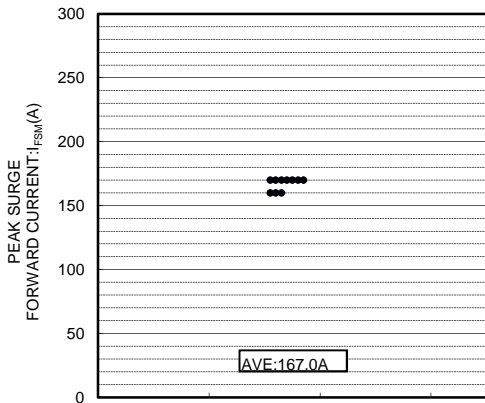
●Electrical characteristic (Ta=25°C)

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	$I_F=0.5\text{A}$, $I_R=1\text{A}$, $I_{rr}=0.25*I_R$
Thermal impedance	$R_{th(j-c)}$	-	-	2.5	°C/W	JUNCTION TO CASE

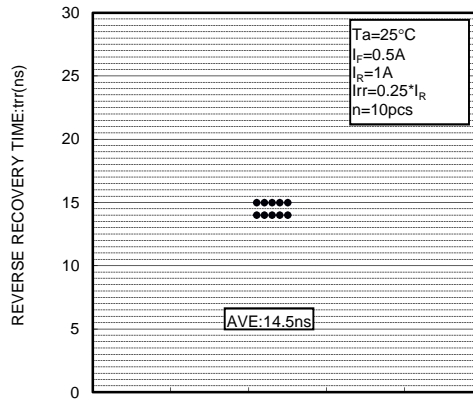
●Electrical characteristics curves



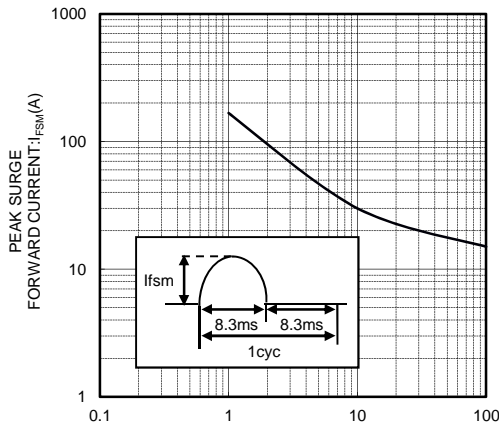
●Electrical characteristics curves



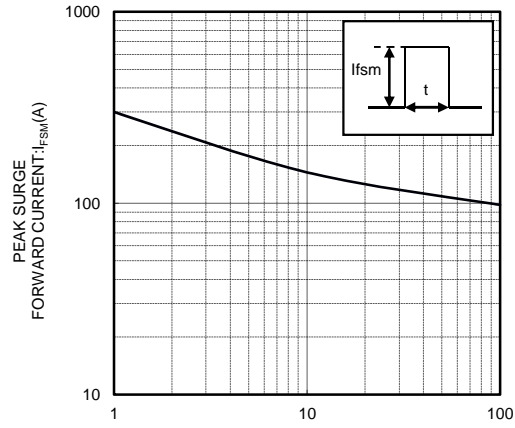
I_{FSM} DISPERSION MAP



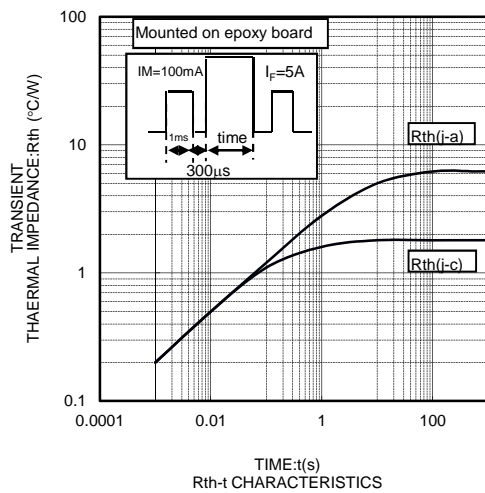
trr DISPERSION MAP



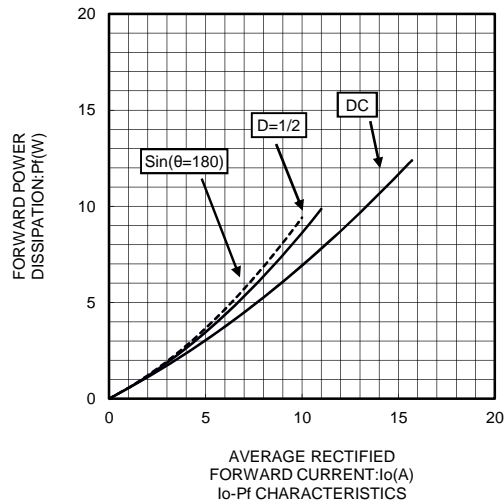
I_{FSM} -CYCLE CHARACTERISTICS



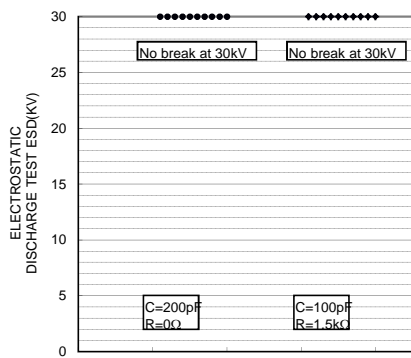
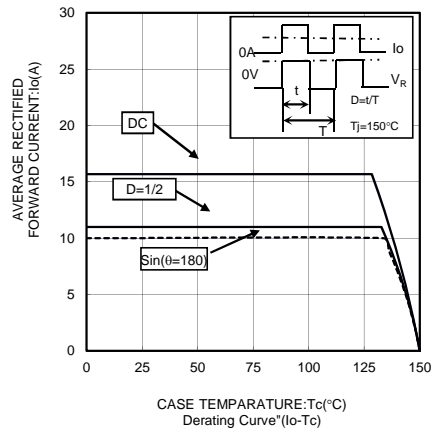
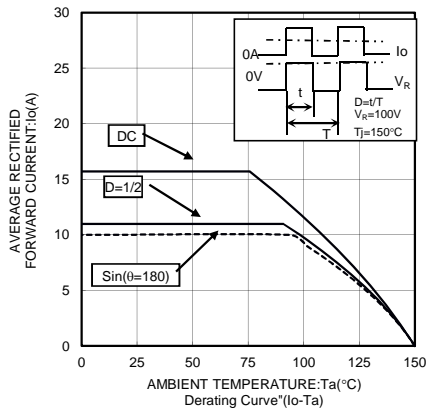
I_{FSM} -t CHARACTERISTICS



R_{th} -t CHARACTERISTICS



I_o -Pf CHARACTERISTICS



ESD DISPERSION MAP

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