

Super Fast Recovery Diode

RFN20T2D

●Applications

General rectification

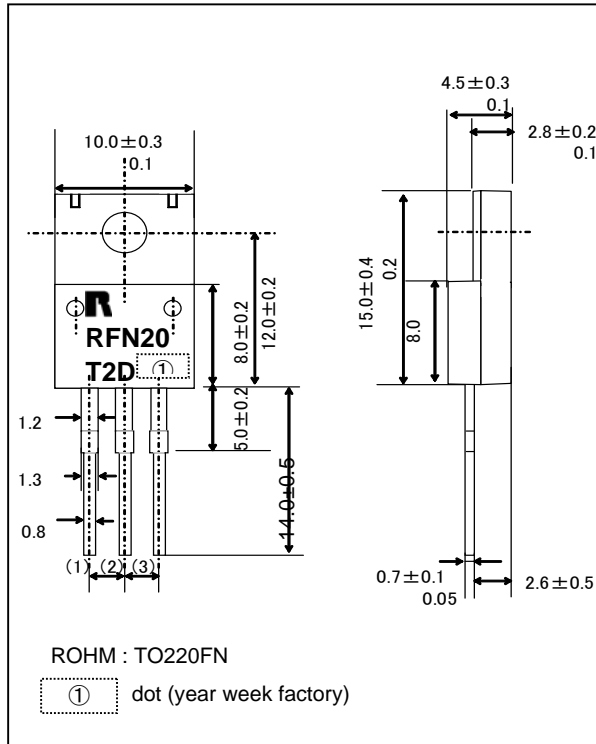
●Features

- 1) Cathode common Dual type. (TO-220)
- 2) Low V_F
- 3) Low switching loss

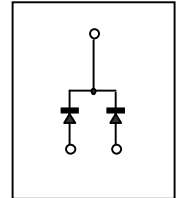
●Construction

Silicon epitaxial planer

●Dimensions (Unit : mm)



●Structure



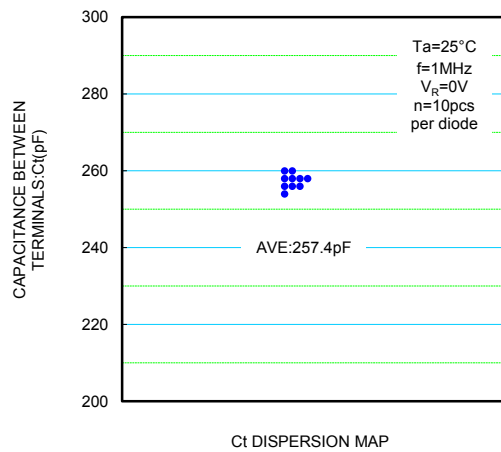
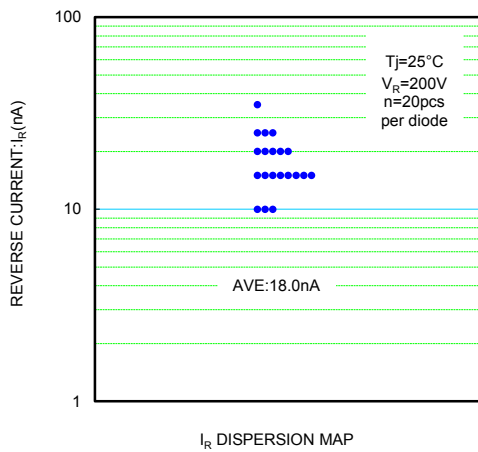
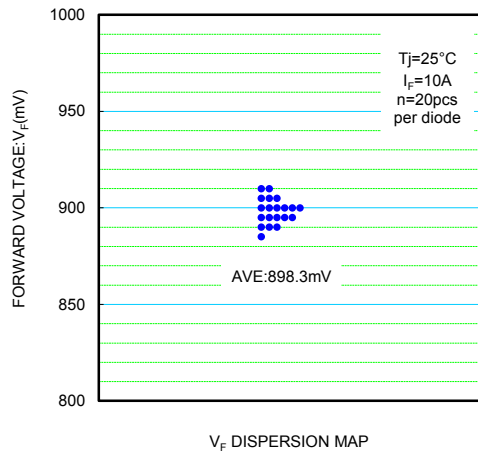
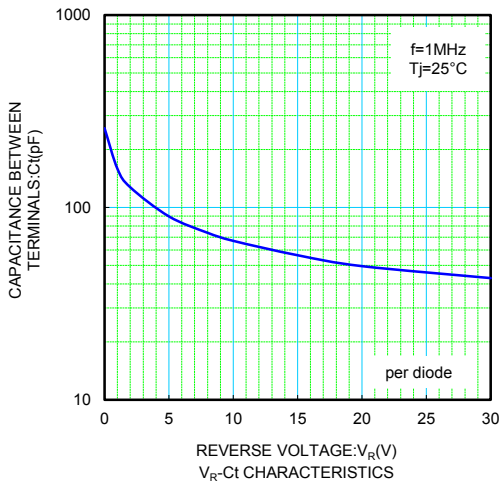
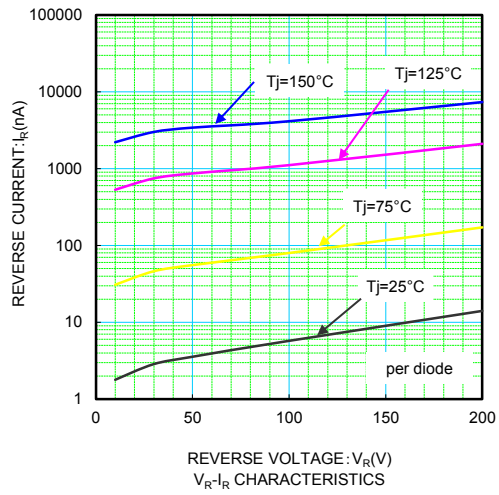
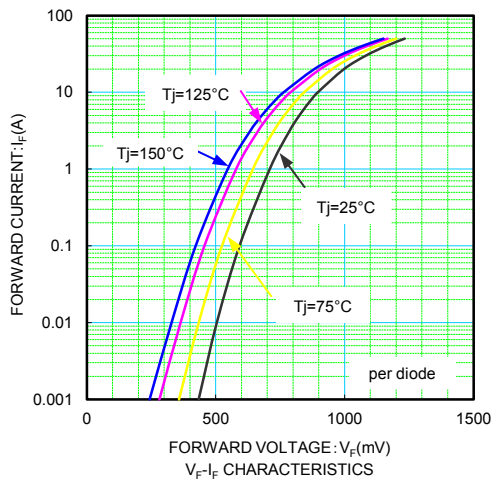
●Absolute maximum ratings ($T_C=25^\circ\text{C}$)

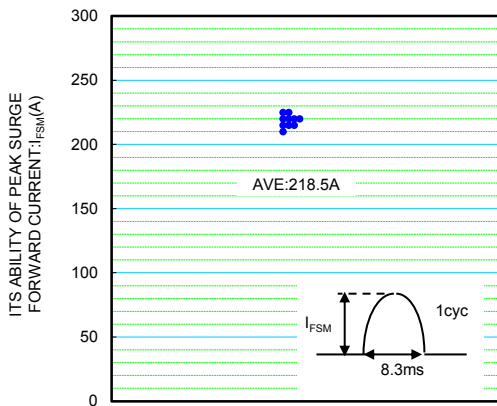
Parameter	Symbol	Conditions	Limits	Unit
Repetitive peak reverse voltage	V_{RM}	Duty \leq 0.5	200	V
Reverse voltage	V_R	Direct voltage	200	V
Average rectified forward current	I_o	60Hz half sin wave, Resistance load, 1/2 I_o at per diode	$T_C=100^\circ\text{C}$ 20	A
Forward current surge peak	I_{FSM}	60Hz half sin wave, Non-repetitive one cycle peak value, $T_J=25^\circ\text{C}$	100	A
Junction temperature	T_J		150	$^\circ\text{C}$
Storage temperature	T_{stg}		-55 to +150	$^\circ\text{C}$

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

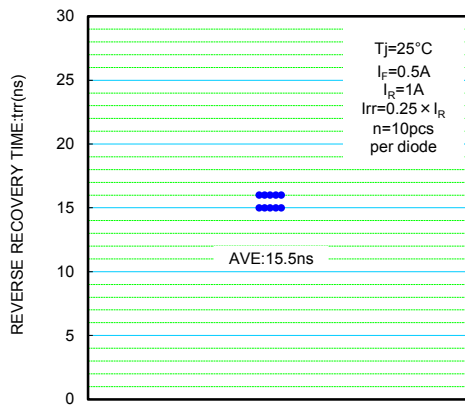
Parameter	Symbol	Conditions	Min.	Typ.	Max.	Unit
Forward voltage	V_F	$I_F=10\text{A}$	—	0.9	0.98	V
Reverse current	I_R	$V_R=200\text{V}$	—	0.01	10	μA
Reverse recovery time	t_{rr}	$I_F=0.5\text{A}, I_R=1\text{A}, I_{rr}=0.25 \times I_R$	—	16	30	ns
Thermal Resistance	$R_{th(j-c)}$	junction to case	—	—	2.0	$^\circ\text{C/W}$

* per diode

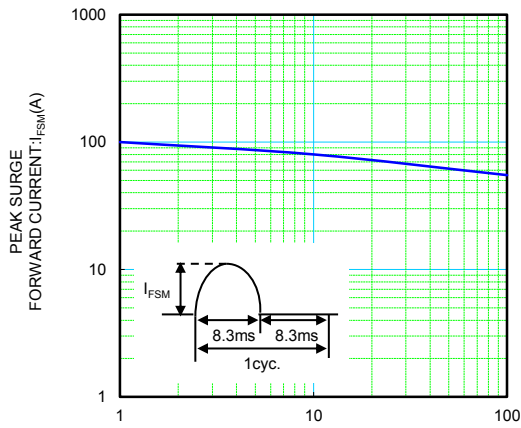




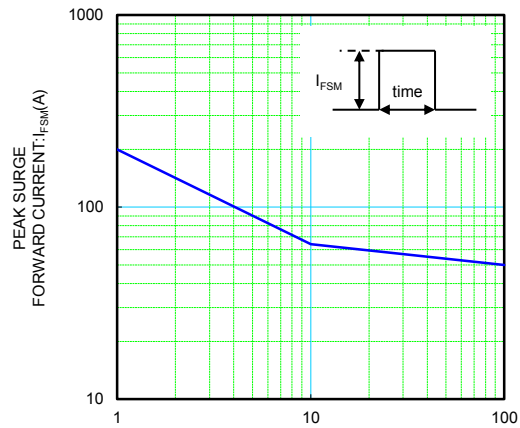
I_{FSM} DISPERSION MAP



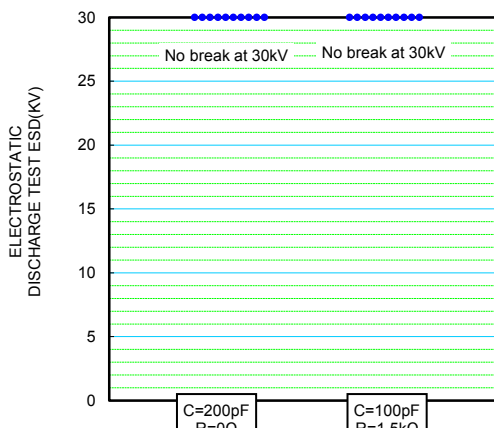
trr DISPERSION MAP



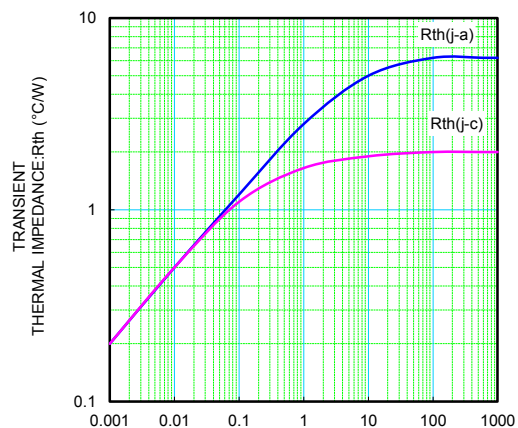
I_{FSM} CYCLE CHARACTERISTICS



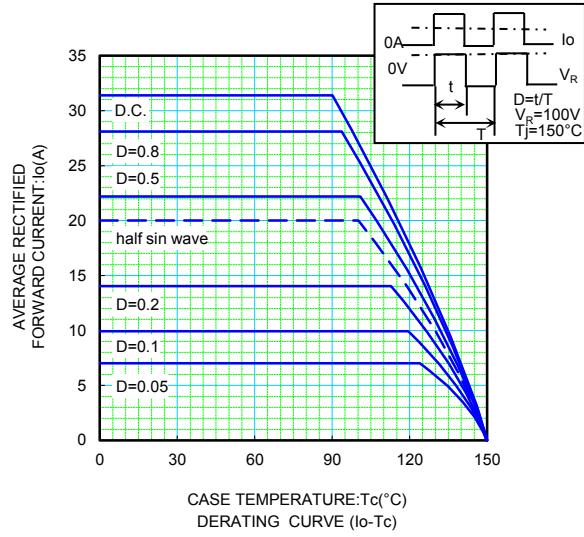
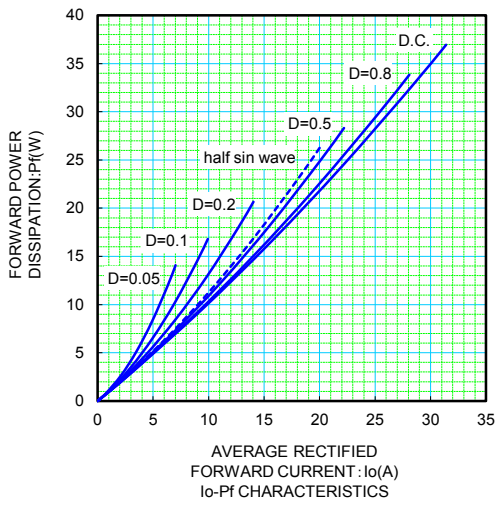
I_{FSM} t CHARACTERISTICS



ESD DISPERSION MAP



R_{th} t CHARACTERISTICS



Notes

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