

# Super Fast Recovery Diode

## RFN10NS3S

●Series

Standard Fast Recovery

●Applications

General rectification

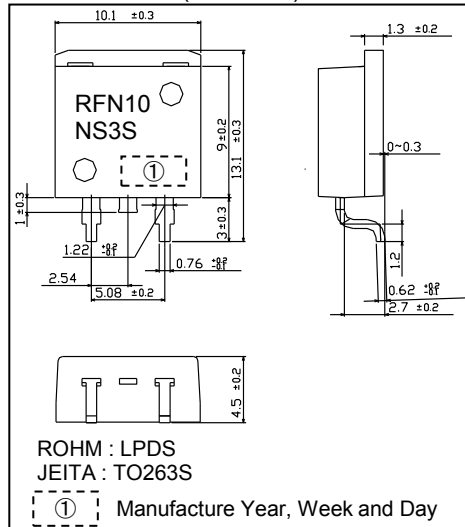
●Features

- 1)Low switching loss
- 2)High current overload capacity
- 3)Cathode common single type

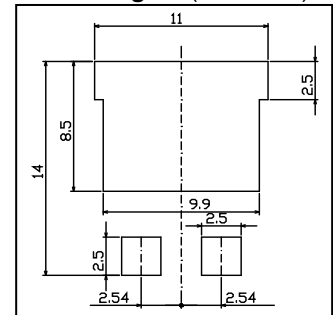
●Construction

Silicon epitaxial planer

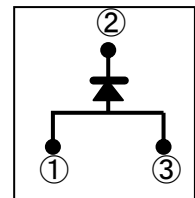
●Dimensions (Unit : mm)



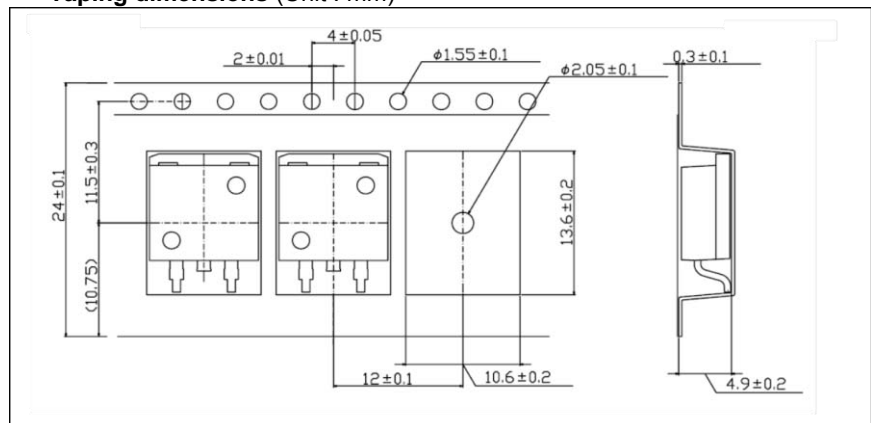
●Land size figure (Unit : mm)



●Structure



●Taping dimensions (Unit : mm)



●Absolute maximum ratings (Tc=25°C)

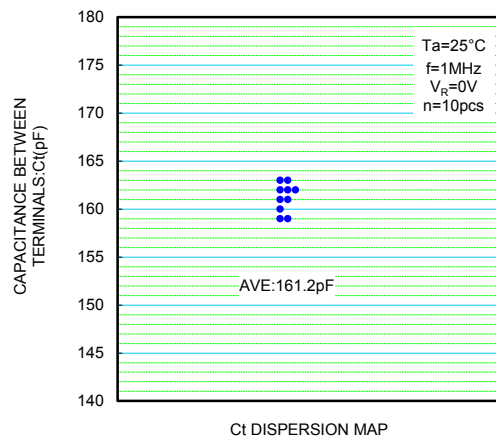
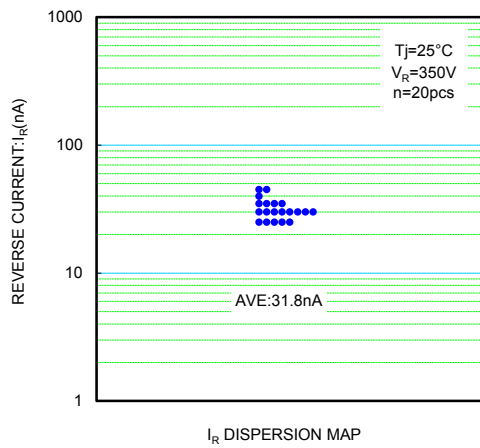
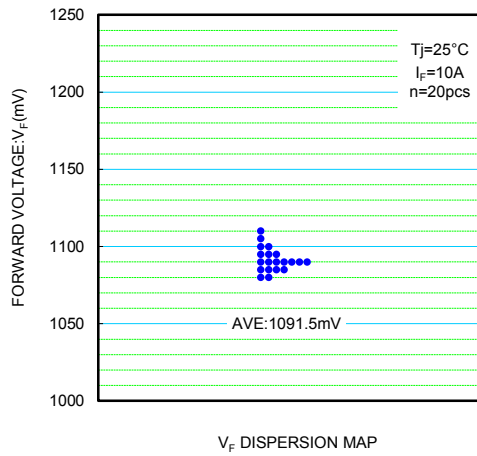
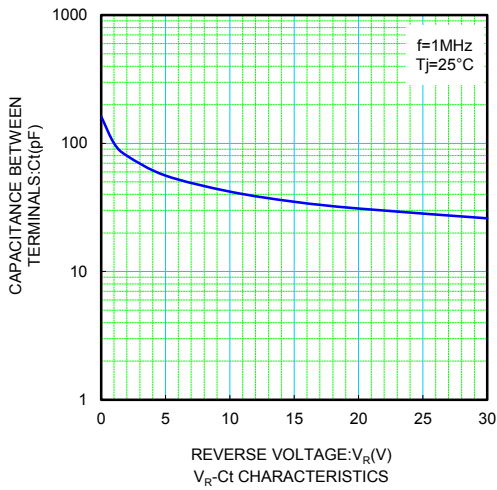
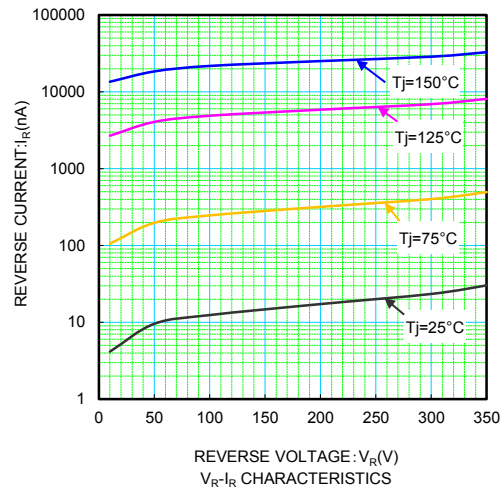
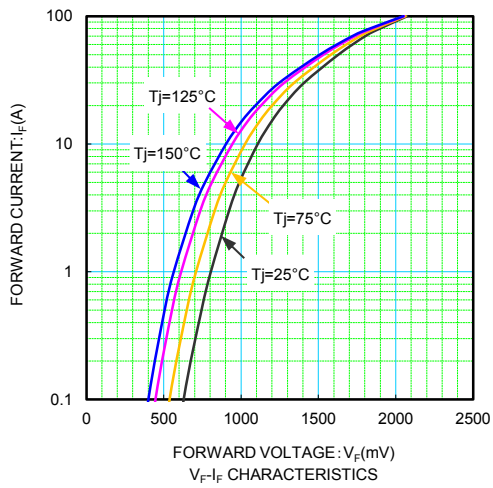
Parameter	Symbol	Conditions	Limits	Unit
Repetitive peak reverse voltage	$V_{RM}$	Duty $\leq$ 0.5	350	V
Reverse voltage	$V_R$	Direct voltage	350	V
Average rectified forward current	$I_o$	60Hz half sin wave resistive load Tc=88°C	10	A
Forward current surge peak	$I_{FSM}$	60Hz half sin wave, Non-repetitive one cycle peak value, Tj=25°C (*)	100	A
Junction temperature	Tj		150	°C
Storage temperature	Tstg		-55 to +150	°C

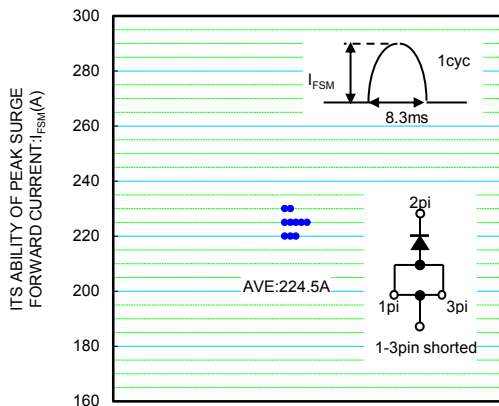
(\*) 1-3pin common circuit

●Electrical characteristics (Tj=25°C)

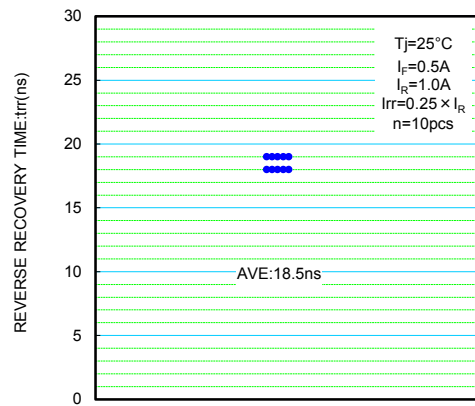
Parameter	Symbol	Conditions	Min.	Typ.	Max.	Unit
Forward voltage	$V_F$	$I_F=10A$	—	1.25	1.5	V
Reverse current	$I_R$	$V_R=350V$	—	0.05	10	$\mu A$
Reverse recovery time (*)	trr	$I_F=0.5A, I_R=1A, I_{rr}=0.25 \times I_R$	—	22	30	ns
Thermal resistance	Rth(j-c)	junction to case	—	—	4.0	°C/W

(\*) Design assurance without measurement.

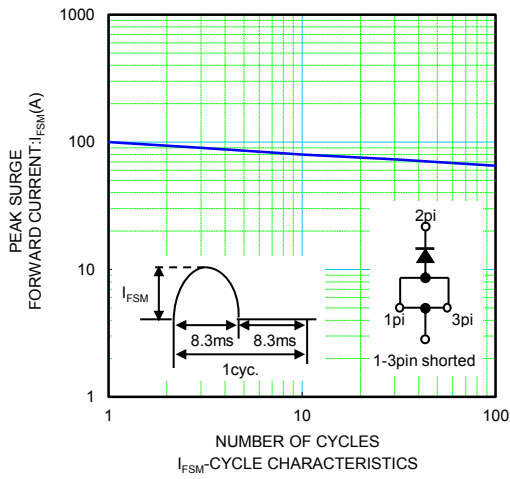




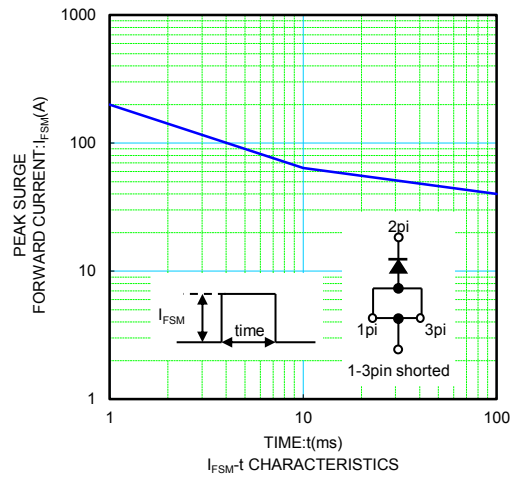
IFSM DISPERSION MAP



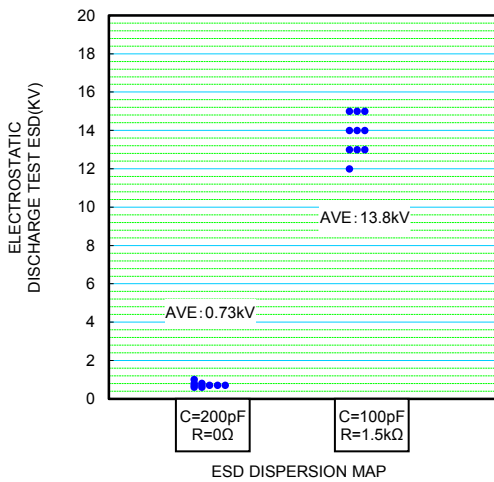
trr DISPERSION MAP



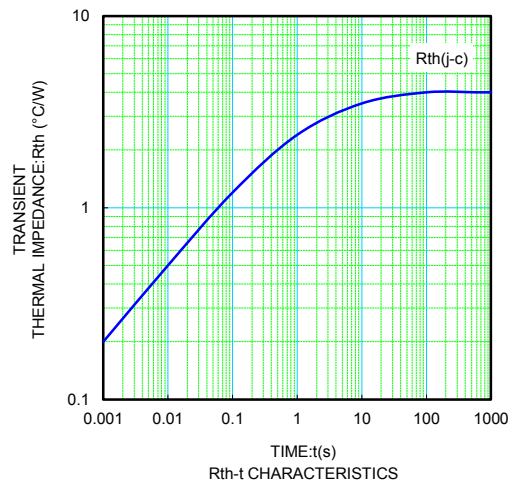
IFSM CYCLE CHARACTERISTICS



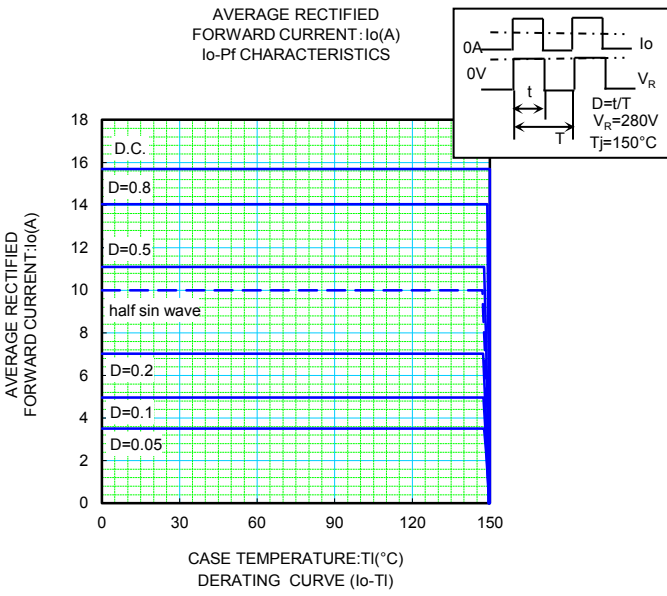
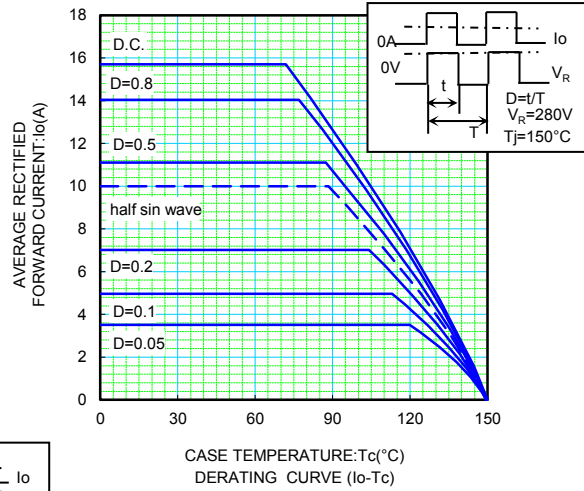
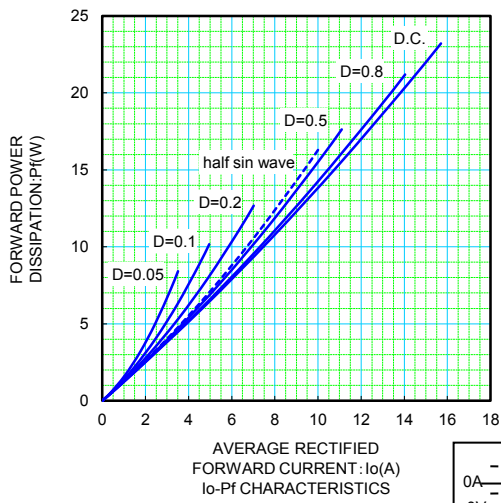
IFSM-t CHARACTERISTICS



ESD DISPERSION MAP



Rth-t CHARACTERISTICS



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