Super Fast Recovery Diode

RF1501NS3S

●Series

Ultra Fast Recovery

●Applications

General rectification

●Features

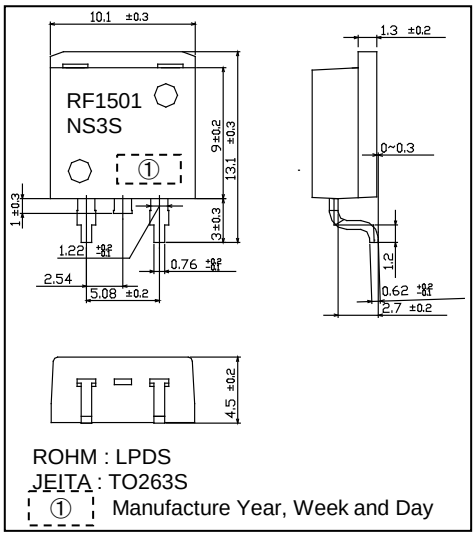
1)Ultra low switching loss

2)High current overload capacity

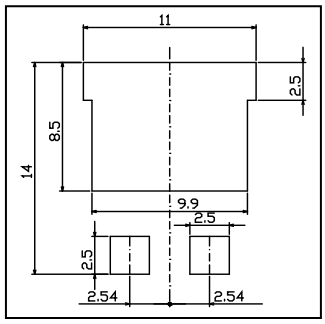
●Construction

Silicon epitaxial planer

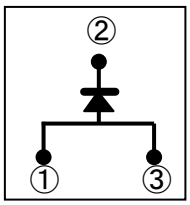
●Dimensions (Unit : mm)



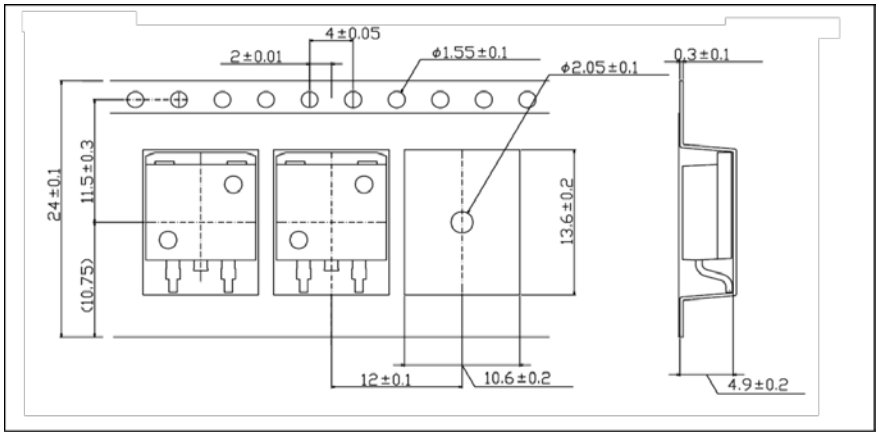
●Land size figure (Unit : mm)



●Structure



●Taping dimensions (Unit : mm)



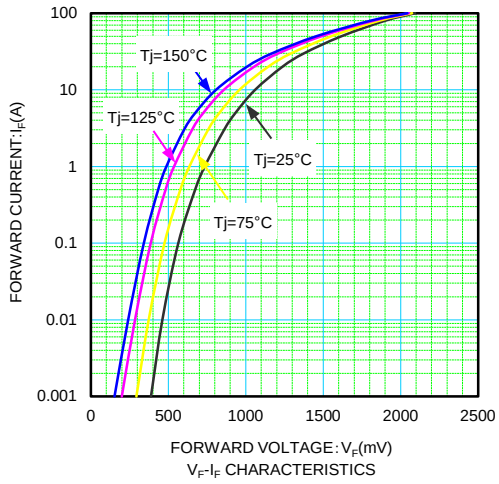
●Absolute maximum ratings (Tc=25°C)

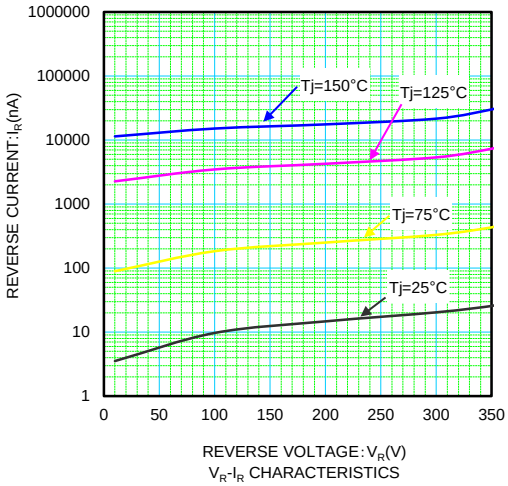
Parameter	Symbol	Conditions	Limits	Unit
Repetitive peak reverse voltage	V_{RM}	Duty≦0.5	350	V
Reverse voltage	V_R	Direct voltage	300	V
Average rectified forward current	Io	60Hz half sin wave resistive load at Tc=54°C	20	A
Forward current surge peak	I_{FSM}	60Hz half sin wave, Non-repetitive one cycle peak value, Tj=25°C	100	A
Junction temperature	Tj		150	°C
Storage temperature	Tstg		- 55 to +150	°C

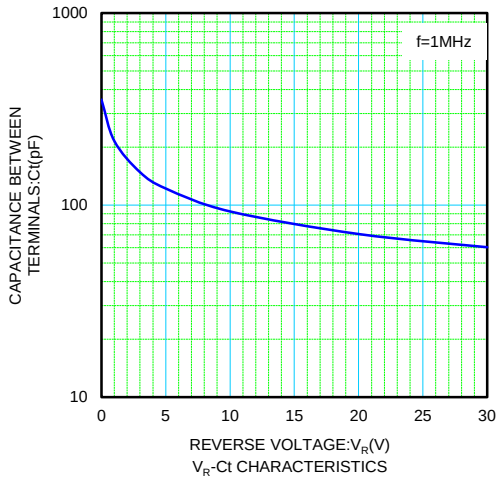
●Electrical characteristics (Tj=25°C)

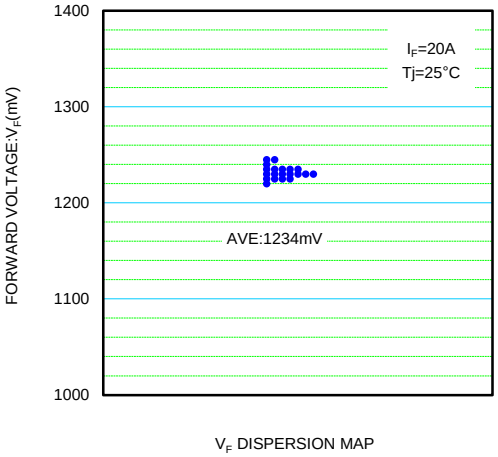
Parameter	Symbol	Conditions	Min.	Typ.	Max.	Unit
Forward voltage	V_F	I_F=20A	—	1.35	1.5	V
Reverse current	I_R	V_R=300V	—	0.06	10	μA
Reverse recovery time	trr	I_F=0.5A,I_R=1A,Irr=0.25×I_R	—	22	30	ns
Thermal resistance	Rth(j-c)	junction to case	—	—	2.5	°C/W

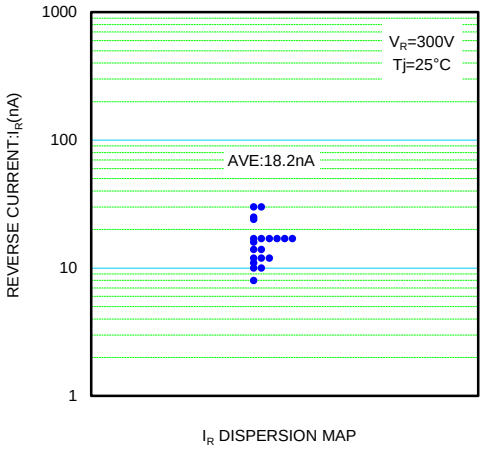
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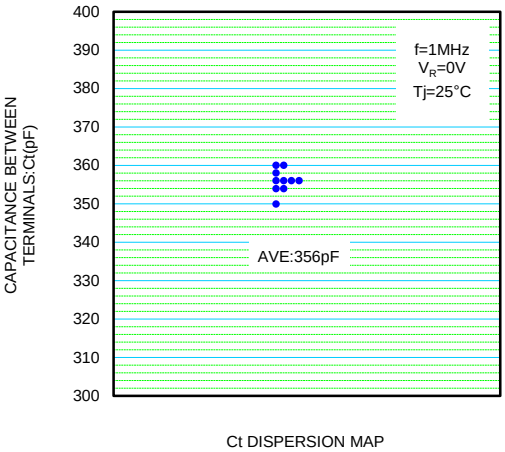




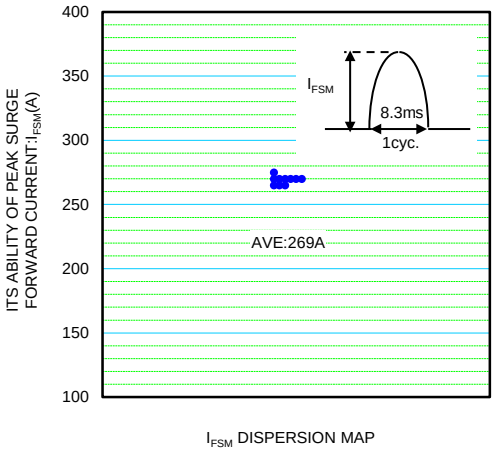




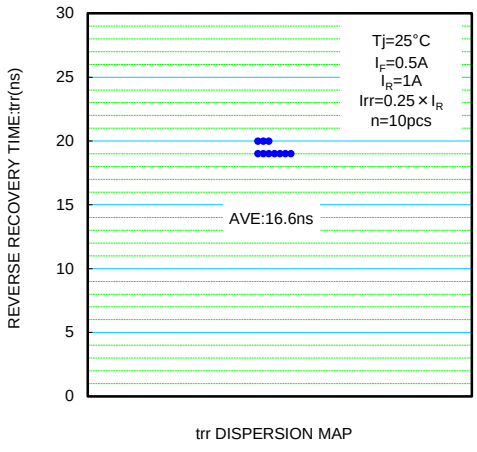




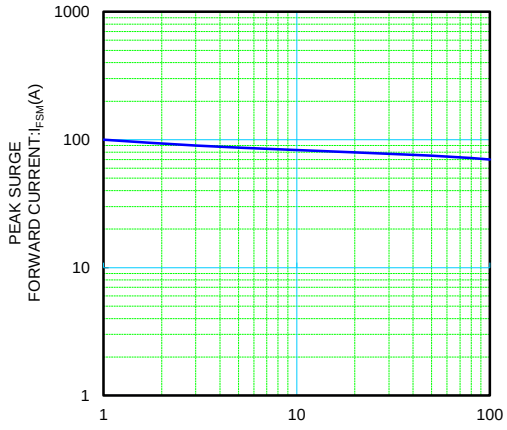
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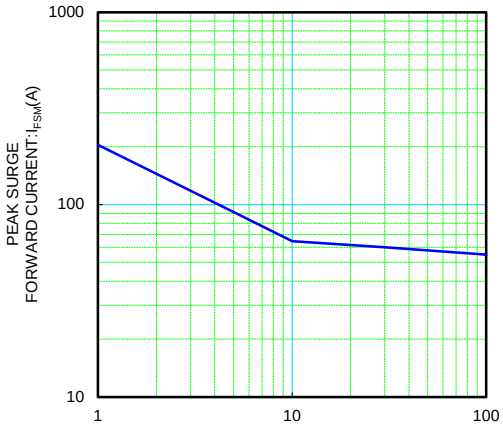
I_{FSM} DISPERSION MAP



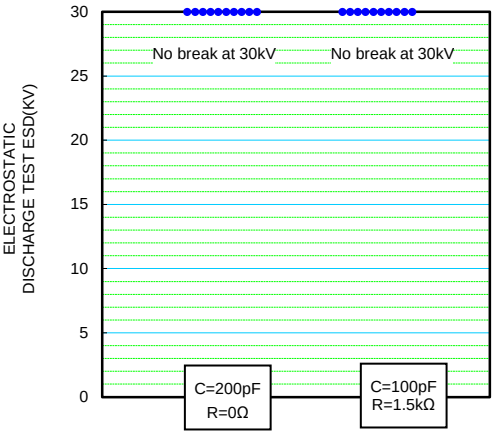
trr DISPERSION MAP



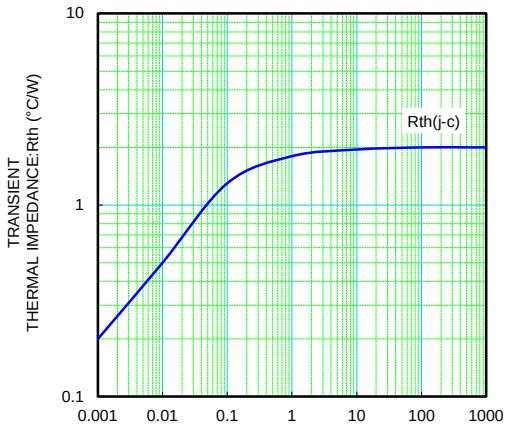
I_{FSM}-CYCLE CHARACTERISTICS



I_{FSM}-t CHARACTERISTICS

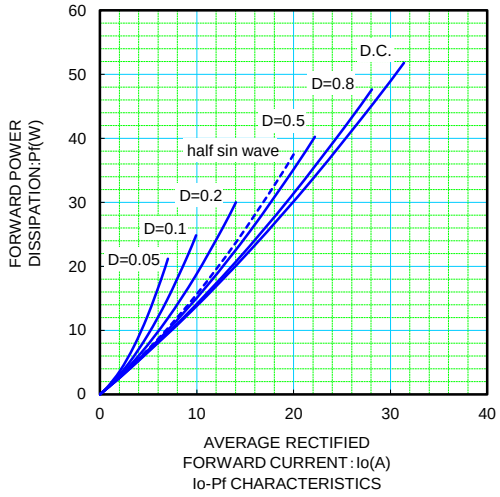


ESD DISPERSION MAP

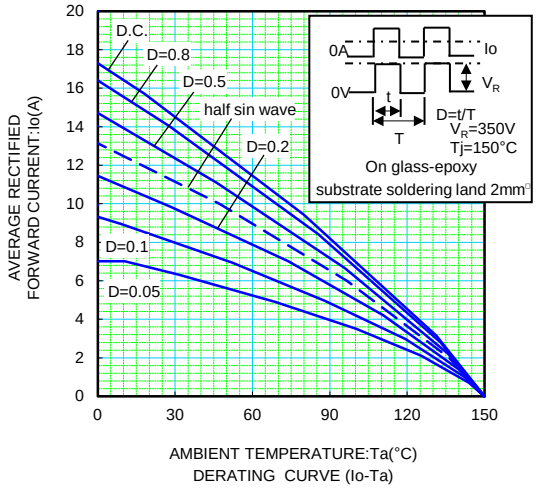


Rth-t CHARACTERISTICS

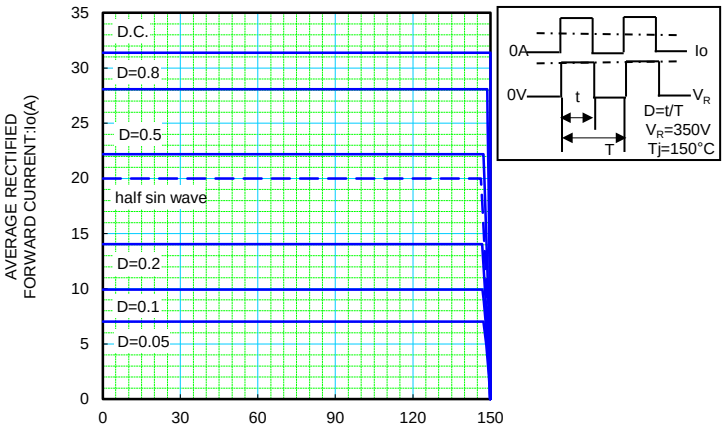
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Io-Pf CHARACTERISTICS



AMBIENT TEMPERATURE:Ta(°C)
DERATING CURVE (Io-Ta)



CASE TEMPERATURE:Tl(°C)
DERATING CURVE (Io-Tl)

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