

Super Fast Recovery Diode

RF1501NS3S

●Series

Ultra Fast Recovery

●Applications

General rectification

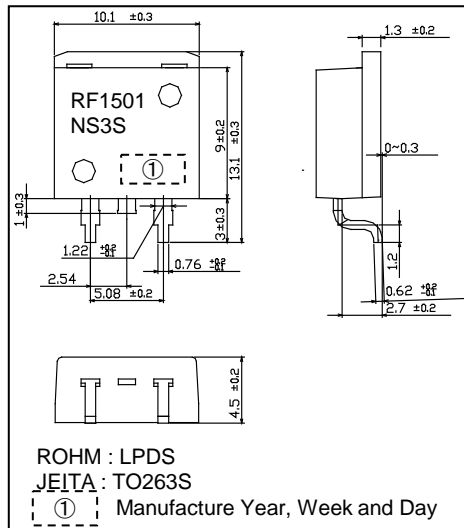
●Features

- 1) Ultra low switching loss
- 2) High current overload capacity

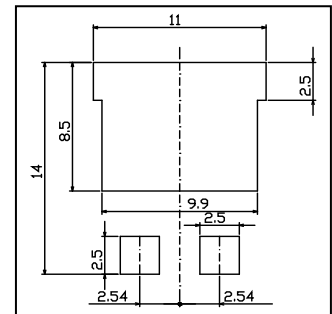
●Construction

Silicon epitaxial planer

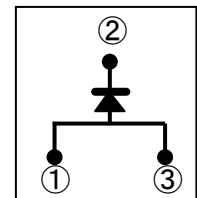
●Dimensions (Unit : mm)



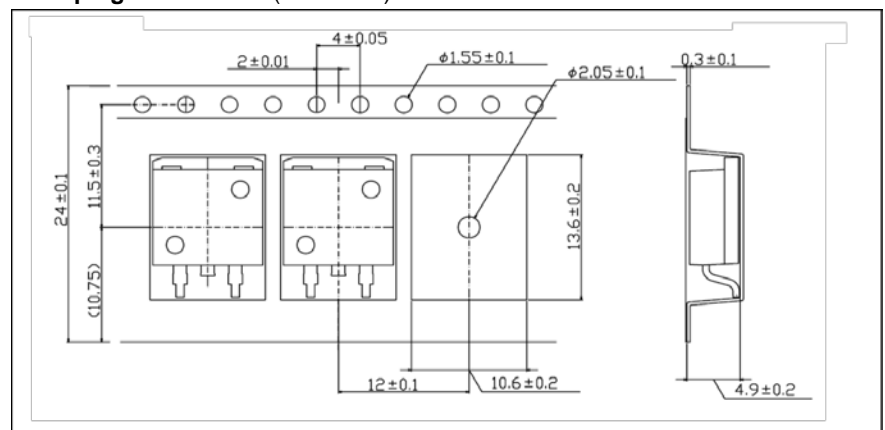
●Land size figure (Unit : mm)



●Structure



●Taping dimensions (Unit : mm)

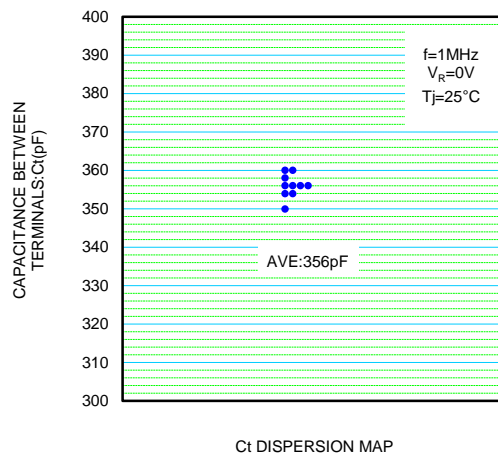
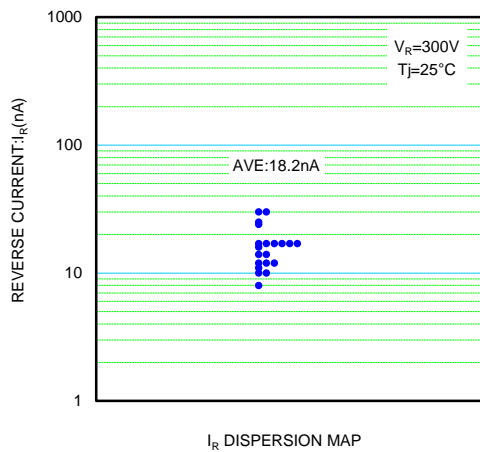
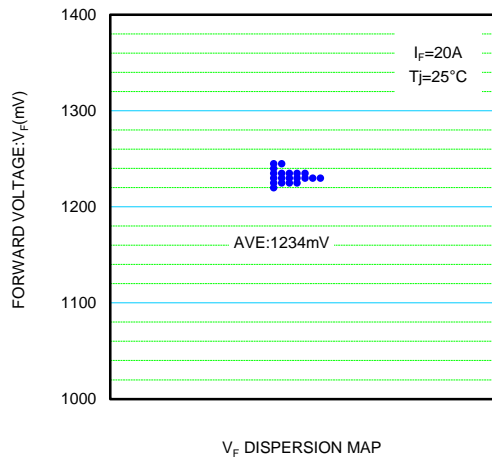
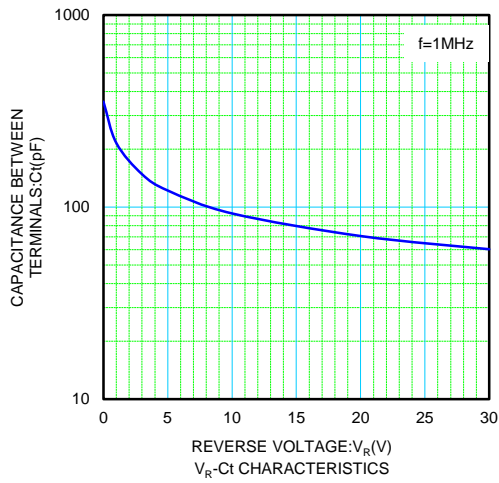
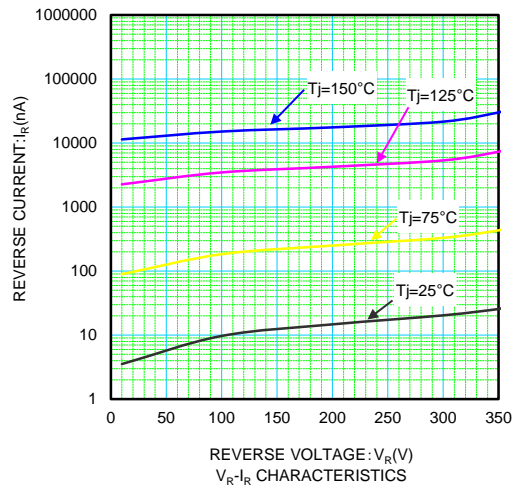
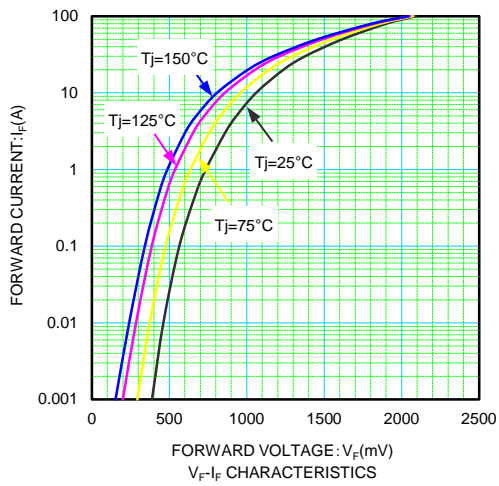


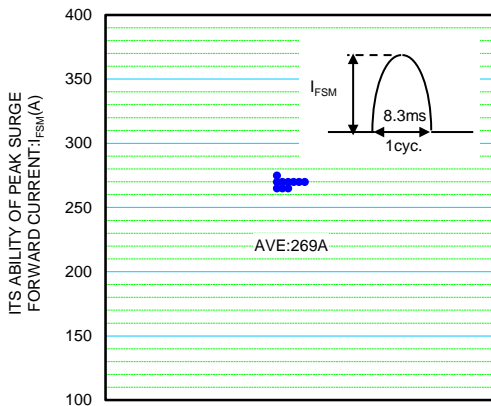
●Absolute maximum ratings (T_c=25°C)

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	I _o	60Hz half sin wave resistive load at T _c =54°C	20	A
Forward current surge peak	I _{FSM}	60Hz half sin wave, Non-repetitive one cycle peak value, T _j =25°C	100	A
Junction temperature	T _j		150	°C
Storage temperature	T _{stg}		- 55 to +150	°C

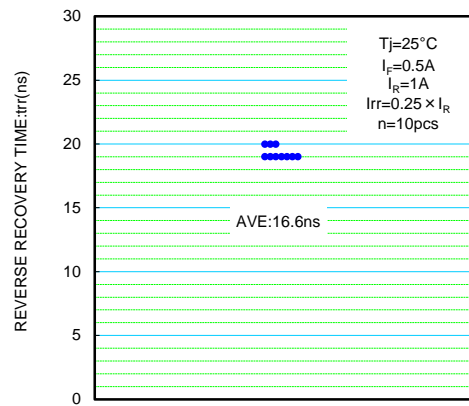
●Electrical characteristics (T_j=25°C)

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	t _{rr}	I _F =0.5A, I _R =1A, I _{rr} =0.25×I _R	—	22	30	ns
Thermal resistance	R _{th(j-c)}	junction to case	—	—	2.5	°C/W

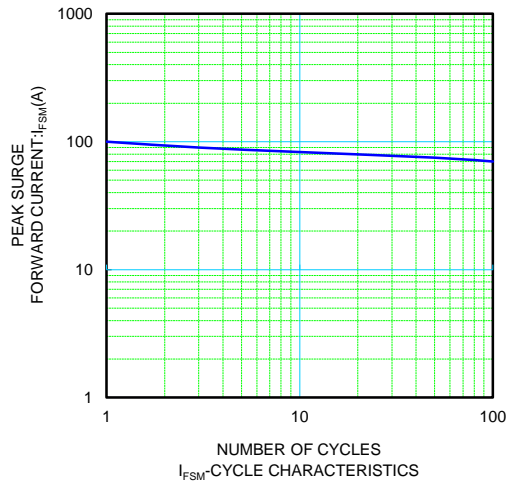




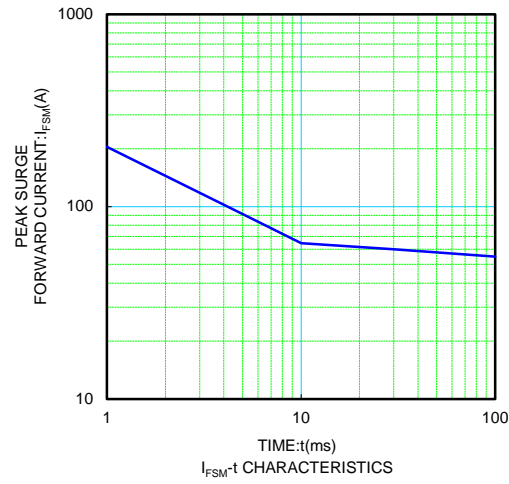
I_{FSM} DISPERSION MAP



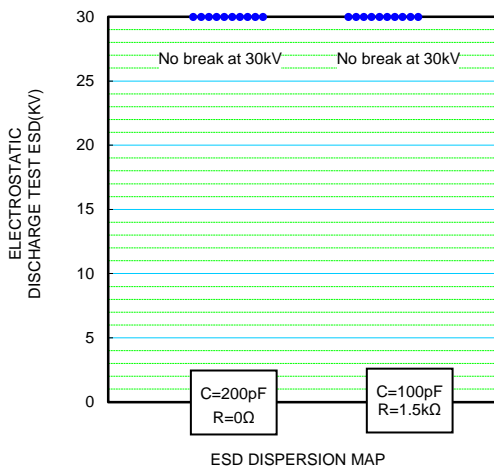
t_{rr} DISPERSION MAP



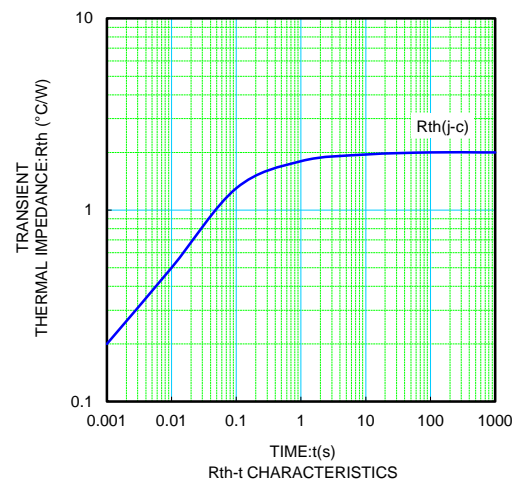
I_{FSM} -CYCLE CHARACTERISTICS



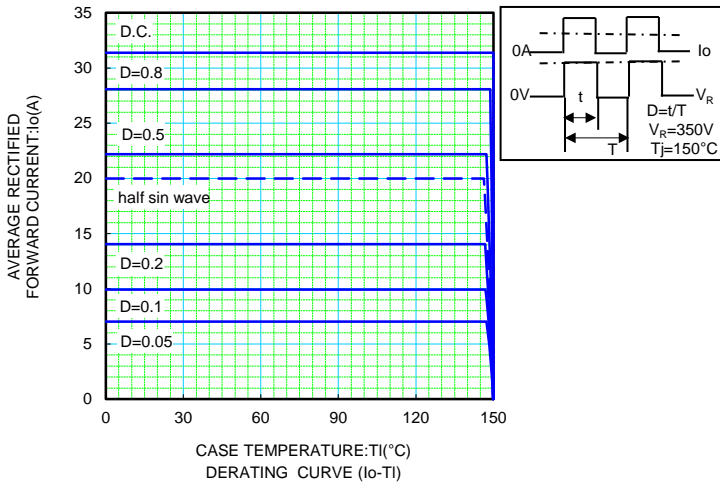
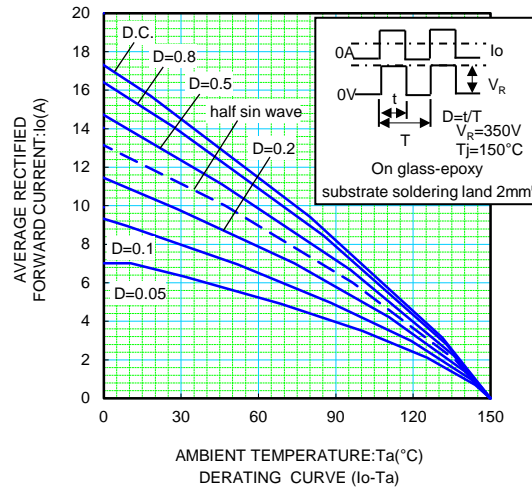
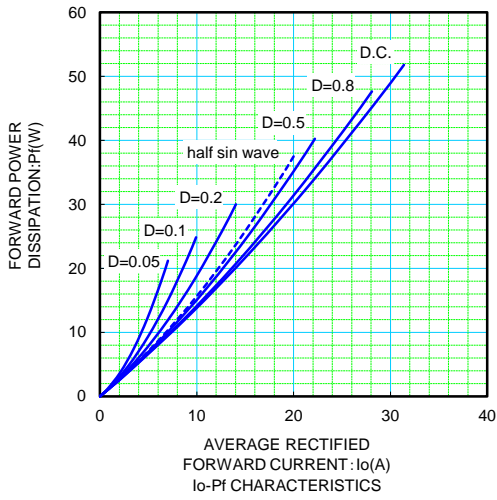
I_{FSM} - t CHARACTERISTICS



ESD DISPERSION MAP



R_{th} - t CHARACTERISTICS



Notes

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