

Super Fast Recovery Diode

RFN10NS4S

●Serise

Standard Fast Recovery

●Applications

General rectification

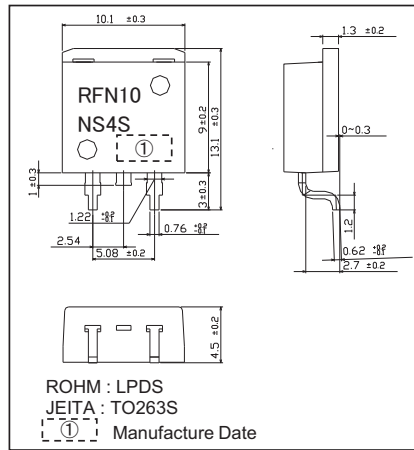
●Features

- 1)Low switching loss
- 2)High current overload capacity

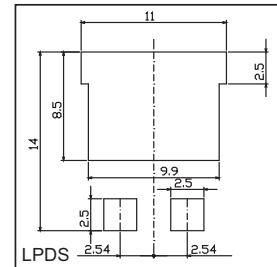
●Construction

Silicon epitaxial planer type

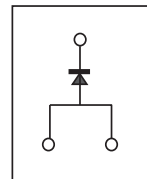
●Dimensions(Unit : mm)



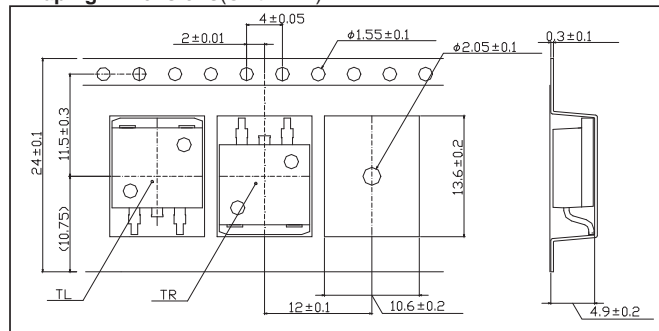
●Land Size Figure(Unit : mm)



●Structure



●Taping Dimensions(Unit : mm)



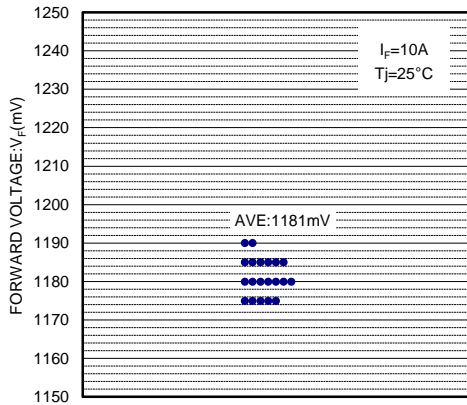
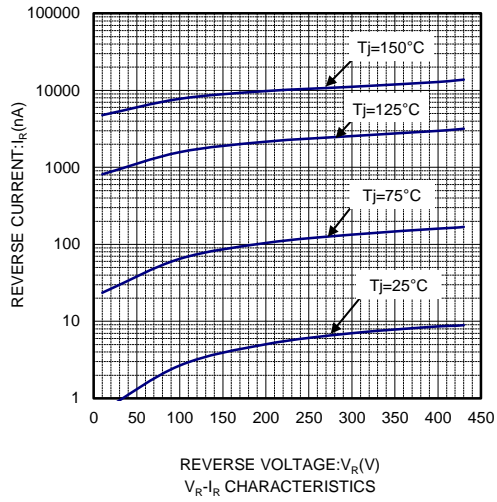
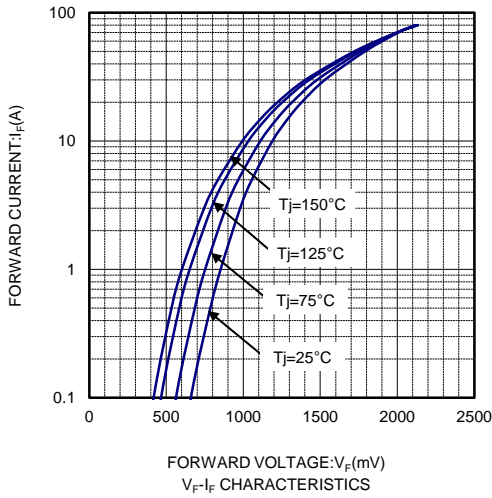
●Absolute Maximum Ratings(Tc=25°C)

Parameter	Symbol	Conditions	Limits	Unit
Repetitive peak reverse voltage	V_{RM}	Duty ≤ 0.5	430	V
Reverse voltage	V_R	Direct voltage	430	V
Average rectified forward current	I_o	60Hz half sin wave , Resistive load Tc=75°C	10	A
Forward current surge peak	I_{FSM}	60Hz half sin wave , Non-repetitive at Tj=25°C (*)	80	A
Junction temperature	Tj		150	°C
Storage temperature	Tstg		-55 to +150	°C

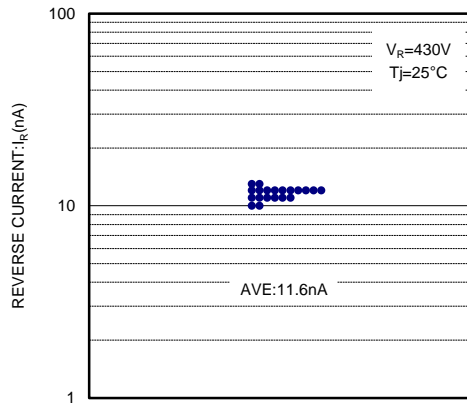
(*) 1-3pin common circuit

●Electrical Characteristics(Tj=25°C)

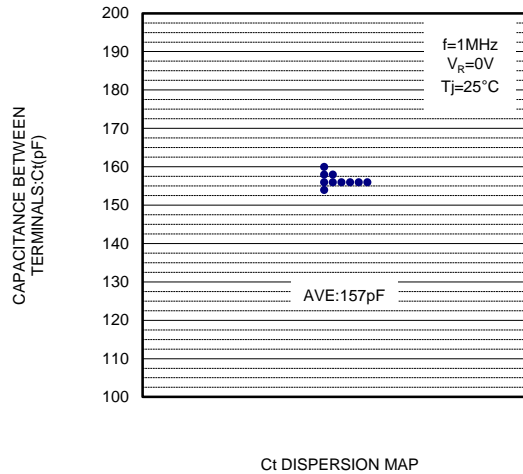
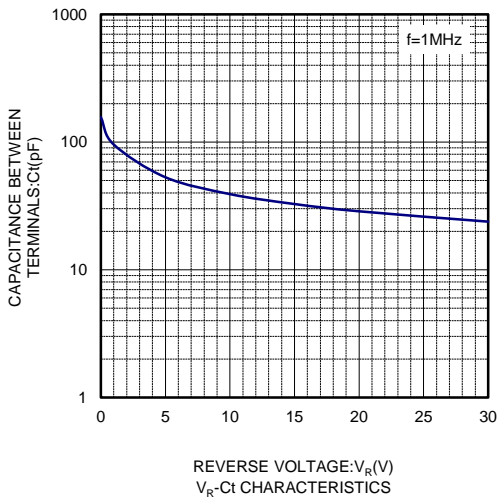
Parameter	Symbol	Conditions	Min.	Typ.	Max.	Unit
Forward voltage	V_F	$I_F=10A$	—	1.2	1.55	V
Reverse current	I_R	$V_R=430V$	—	0.05	10	μA
Reverse recovery time	tr	$I_F=0.5A, I_R=1A, I_{rr}=0.25 \times I_R$	—	18	30	ns
Thermal resistance	Rth(j-c)	Junction to case	—	—	4.0	°C/W



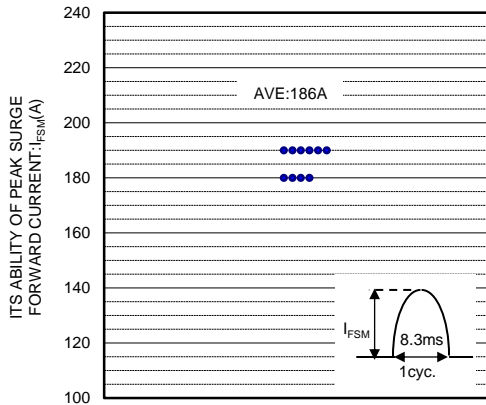
V_F DISPERSION MAP



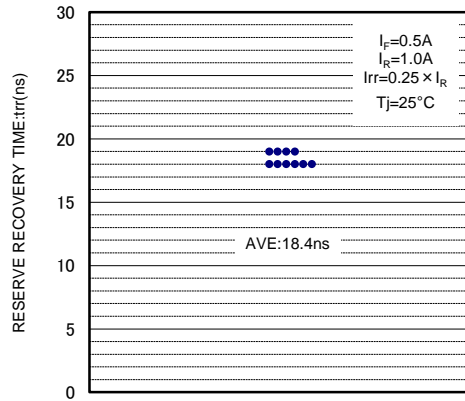
I_R DISPERSION MAP



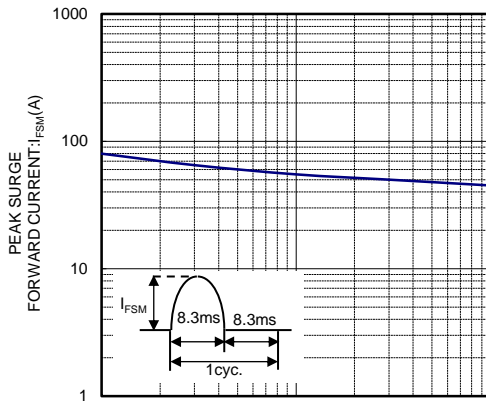
C_t DISPERSION MAP



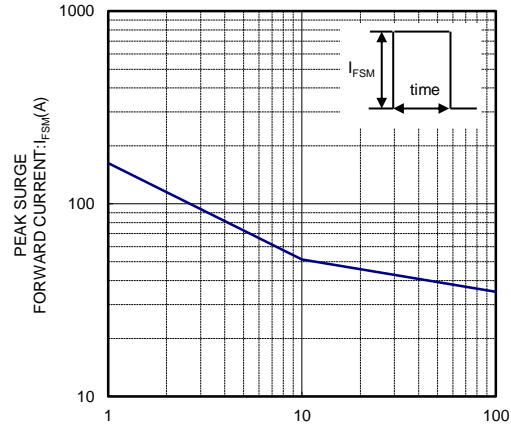
I_{FSM} DISPERSION MAP



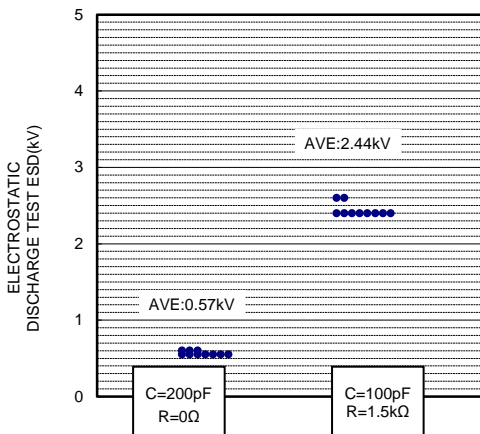
trr DISPERSION MAP



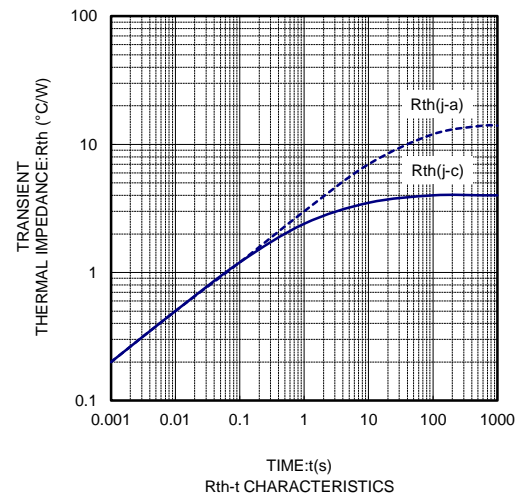
I_{FSM} -CYCLE CHARACTERISTICS



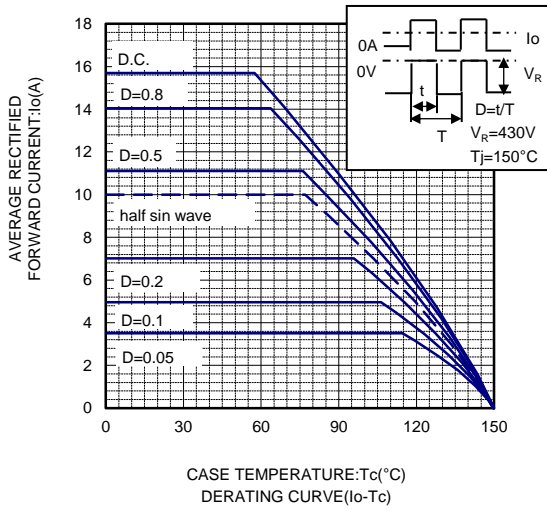
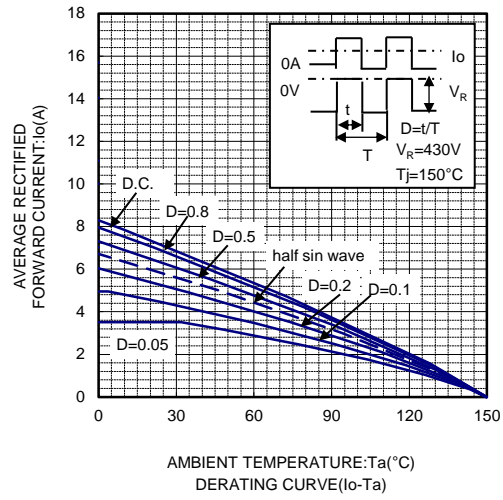
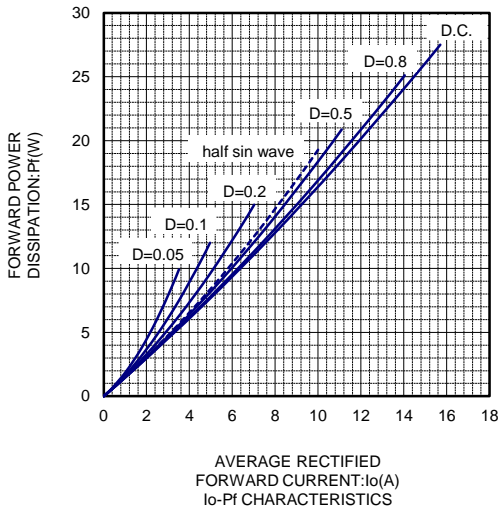
I_{FSM} - t CHARACTERISTICS



ESD DISPERSION MAP



R_{th} - t CHARACTERISTICS



Notes

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