

Super Fast Recovery Diode

RFN5B3S

●Serise

Standard Fast Recovery

●Applications

General rectification

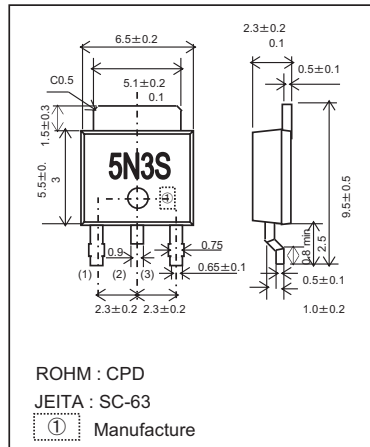
●Features

- 1)Power mold type(CPD)
- 2)Low switching Loss
- 3)High current overload capacity

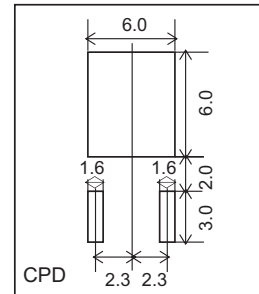
●Construction

Silicon epitaxial planer type

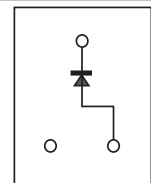
●Dimensions(Unit : mm)



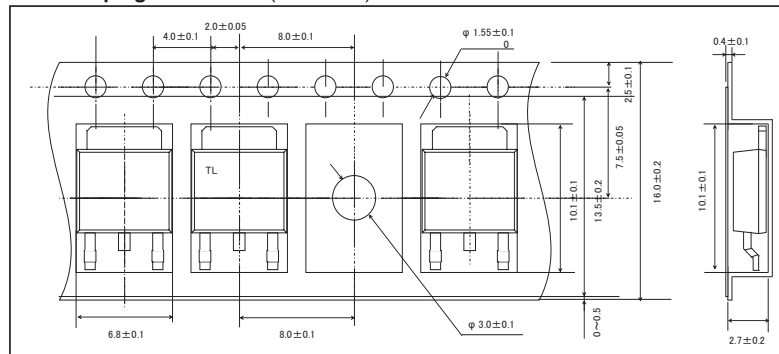
●Land Size Figure(Unit : mm)



●Structure



●Taping Dimensions(Unit : mm)

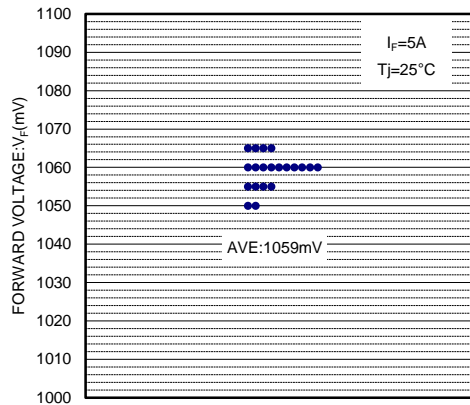
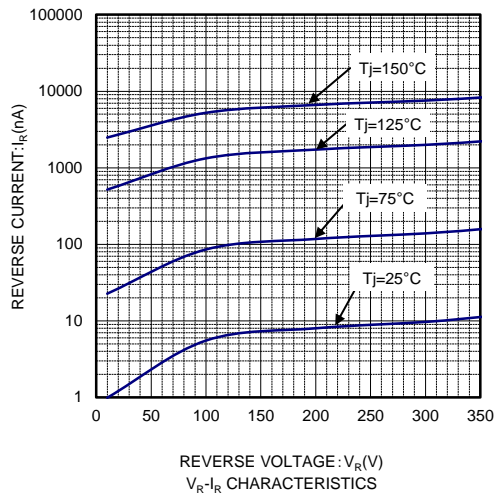
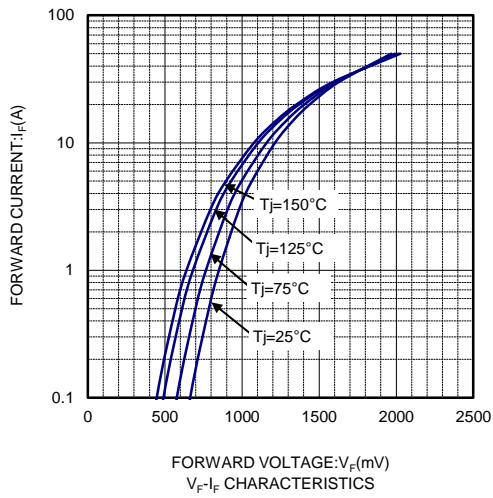


●Absolute Maximum Ratings(Tc=25°C)

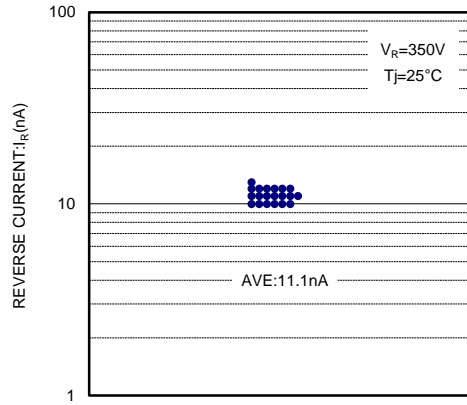
Parameter	Symbol	Conditions	Limits	Unit
Repetitive peak reverse voltage	V_{RM}	Duty ≤ 0.5	350	V
Reverse voltage	V_R	Direct voltage	350	V
Average rectified forward current	I_o	60Hz half sin wave , Resistive load Tc=95°C	5	A
Forward current surge peak	I_{FSM}	60Hz half sin wave , Non-repetitive at Tj=25°C	50	A
Junction temperature	Tj		150	°C
Storage temperature	Tstg		-55 to +150	°C

●Electrical Characteristics(Tj=25°C)

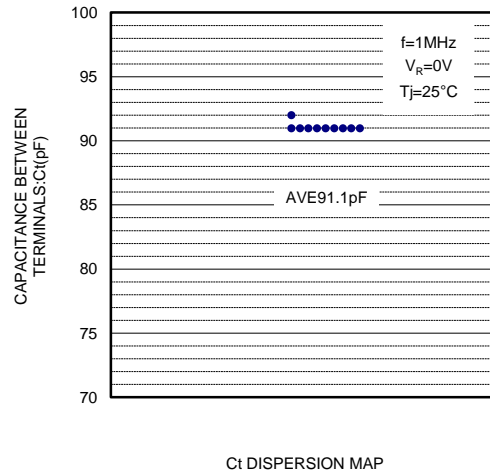
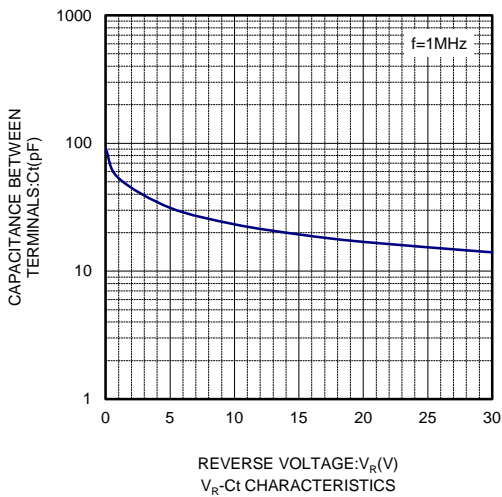
Parameter	Symbol	Conditions	Min.	Typ.	Max.	Unit
Forward voltage	V_F	$I_F=5A$	—	1.1	1.5	V
Reverse current	I_R	$V_R=350V$	—	0.05	10	μA
Reverse recovery time	tr	$I_F=0.5A, I_R=1A, I_{rr}=0.25 \times I_R$	—	20	30	ns
Thermal resistance	Rth(j-c)	Junction to case	—	—	6.0	°C/W



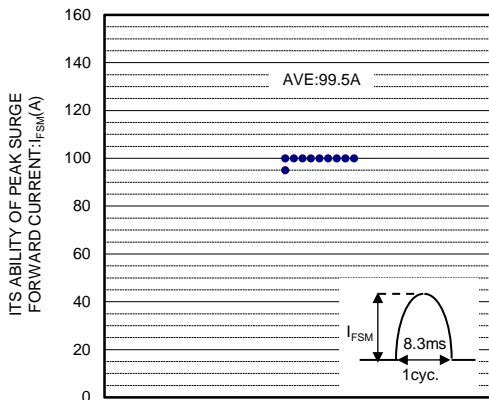
V_F DISPERSION MAP



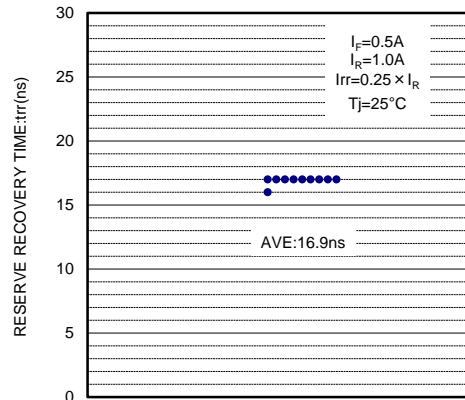
I_R DISPERSION MAP



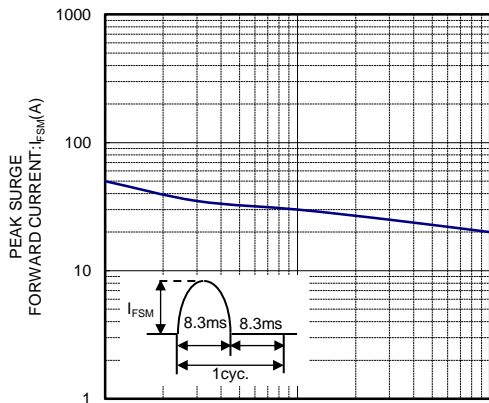
C_t DISPERSION MAP



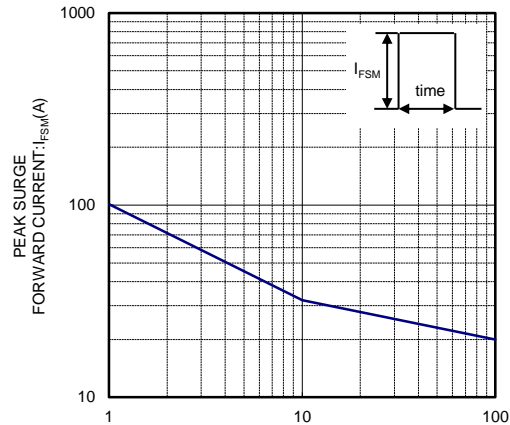
I_{FSM} DISPERION MAP



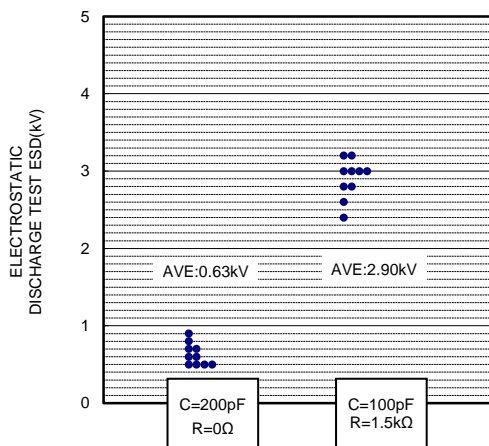
trr DISPERION MAP



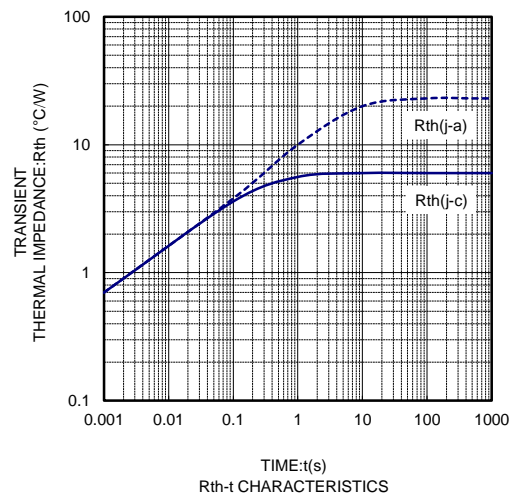
NUMBER OF CYCLES
 I_{FSM} CYCLE CHARACTERISTICS



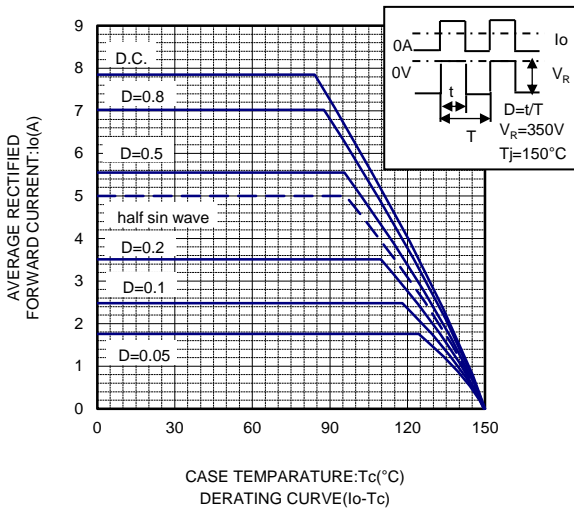
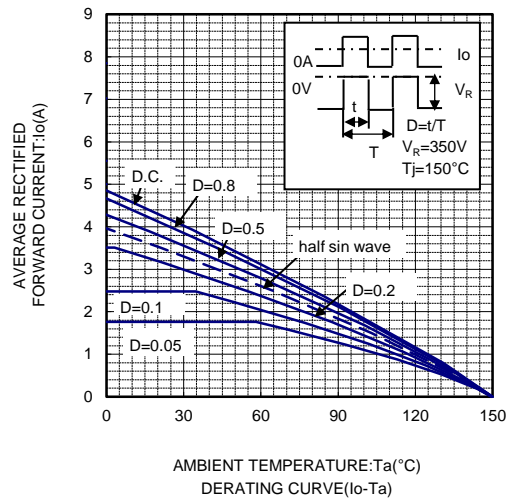
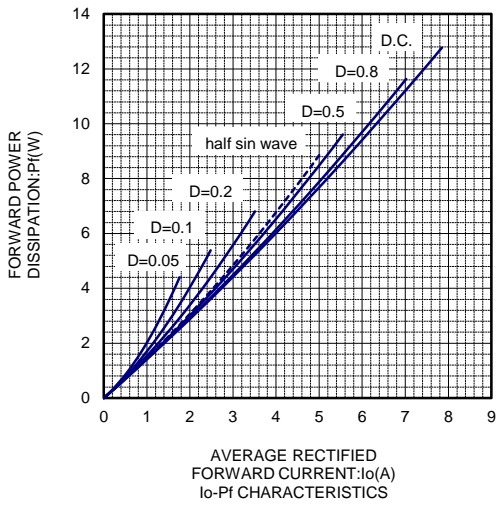
TIME:t(ms)
 I_{FSM} -t CHARACTERISTICS



ESD DISPERION MAP



TIME:t(s)
Rth-t CHARACTERISTICS



Notes

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