

Super Fast Recovery Diode

RFN10B3S

●Series

Standard Fast Recovery

●Applications

General rectification

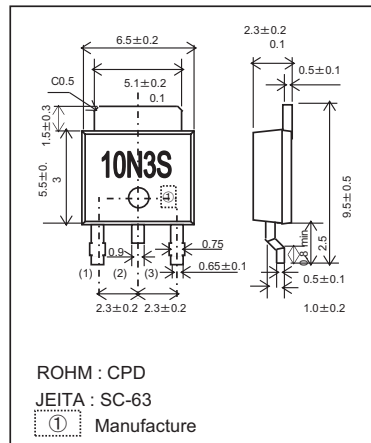
●Features

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

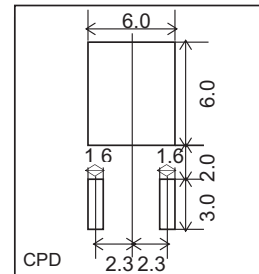
●Construction

Silicon epitaxial planer type

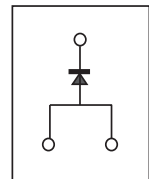
●Dimensions (Unit : mm)



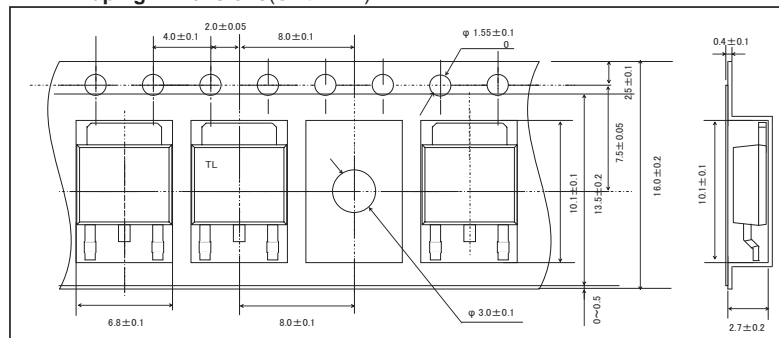
●Land Size Figure (Unit : mm)



●Structure



●Taping Dimensions (Unit : mm)



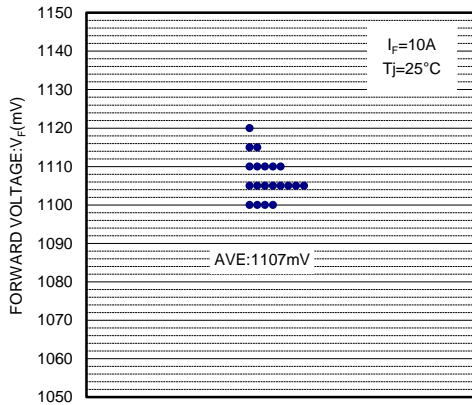
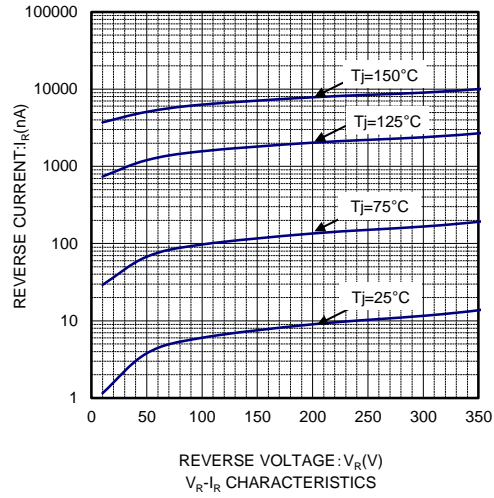
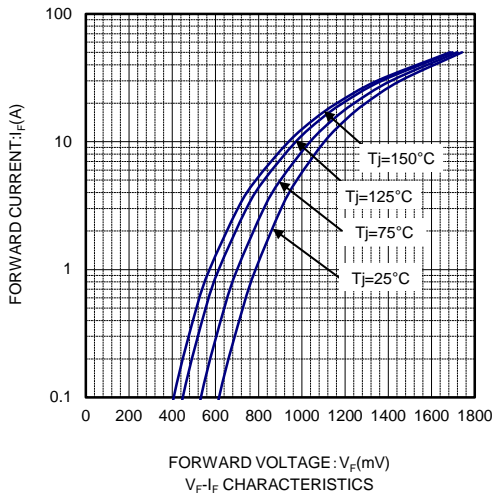
●Absolute Maximum Ratings (Tc=25°C)

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=34°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

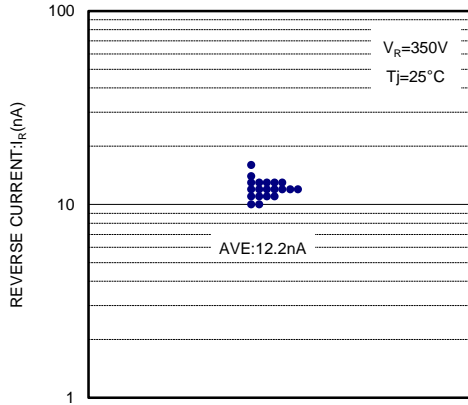
(*) 1-3pin common circuit

●Electrical Characteristics (Tj=25°C)

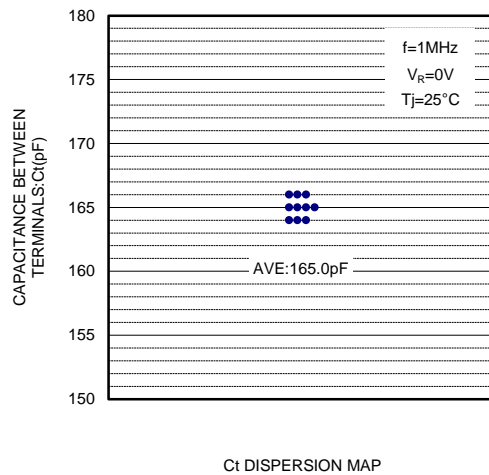
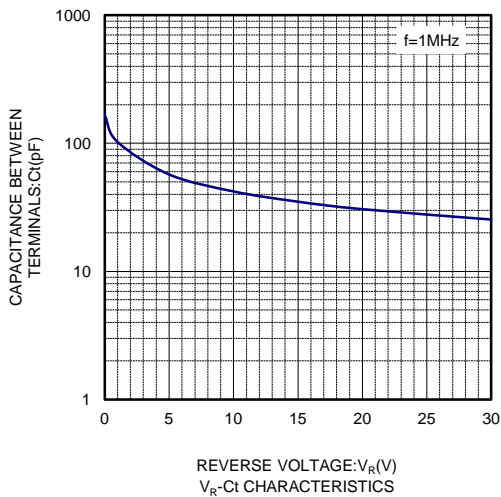
Parameter	Symbol	Conditions	Min.	Typ.	Max.	Unit
Forward voltage	V_F	$I_F=10A$	—	1.1	1.5	V
Reverse current	I_R	$V_R=350V$	—	0.05	10	μA
Reverse recovery time	t_{rr}	$I_F=0.5A, I_R=1A, I_{rr}=0.25 \times I_R$	—	20	30	ns
Thermal resistance	Rth(j-c)	Junction to case	—	—	6.0	°C/W



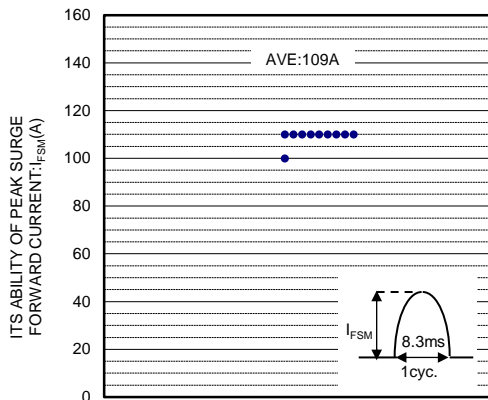
V_F DISPERSION MAP



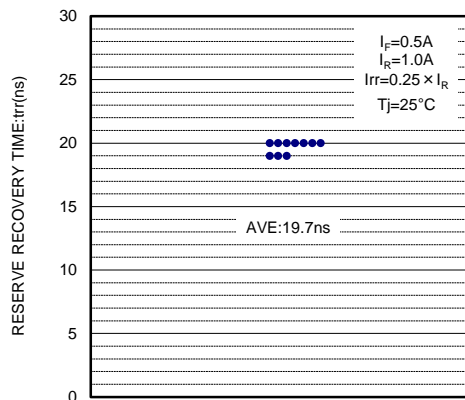
I_R DISPERSION MAP



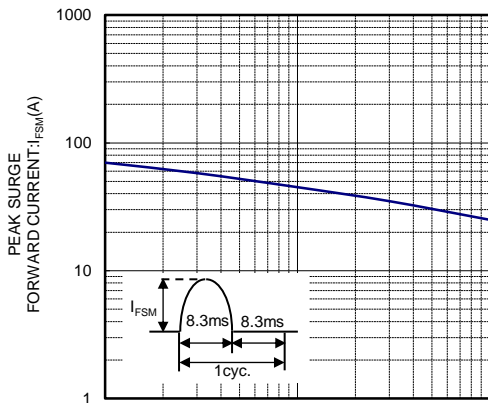
C_t DISPERSION MAP



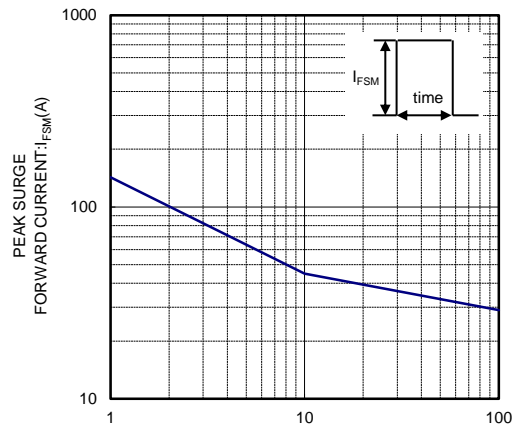
I_{FSM} DISPERSION MAP



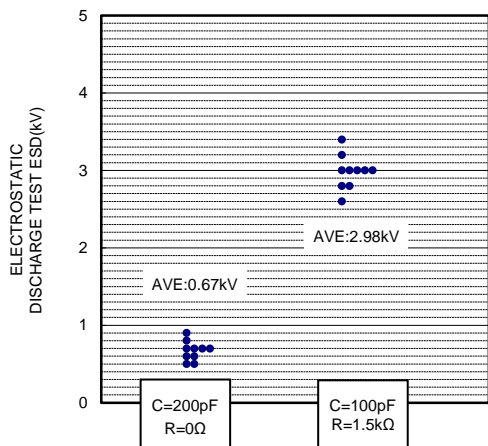
trr DISPERSION MAP



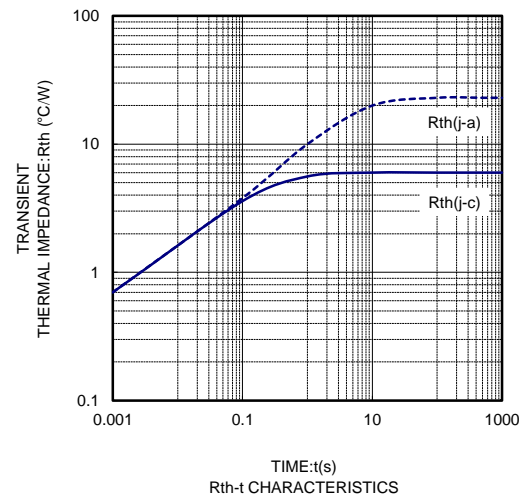
I_{FSM} CYCLE CHARACTERISTICS



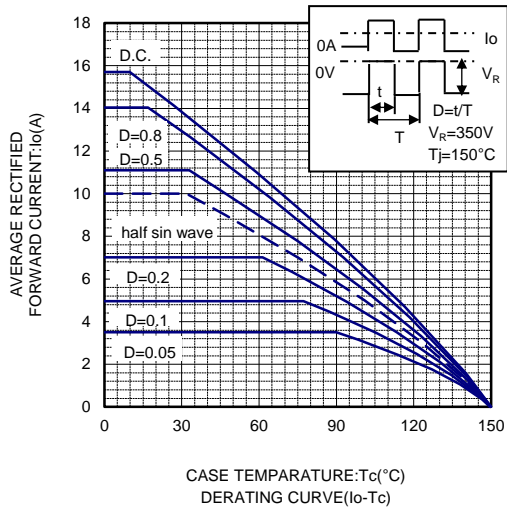
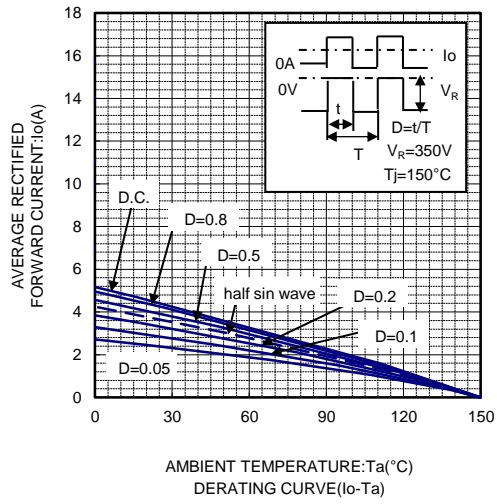
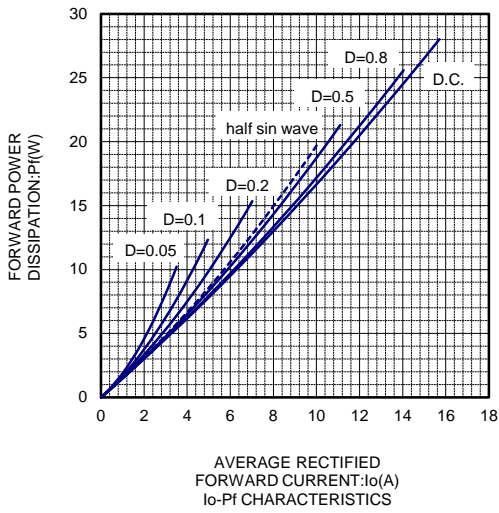
I_{FSM} -t CHARACTERISTICS



ESD DISPERSION MAP



R_{th} -t CHARACTERISTICS



Notes

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