Super Fast Recovery Diode

RFN5B2S

●Applications

General rectification

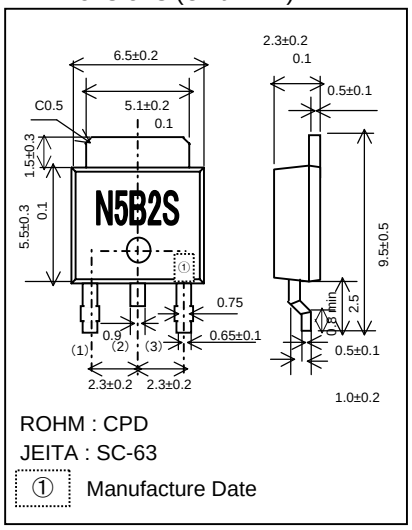
●Features

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

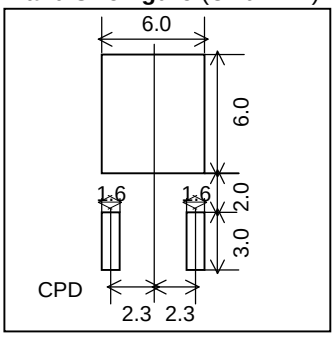
●Construction

Silicon epitaxial planer

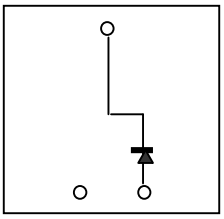
●Dimensions (Unit : mm)



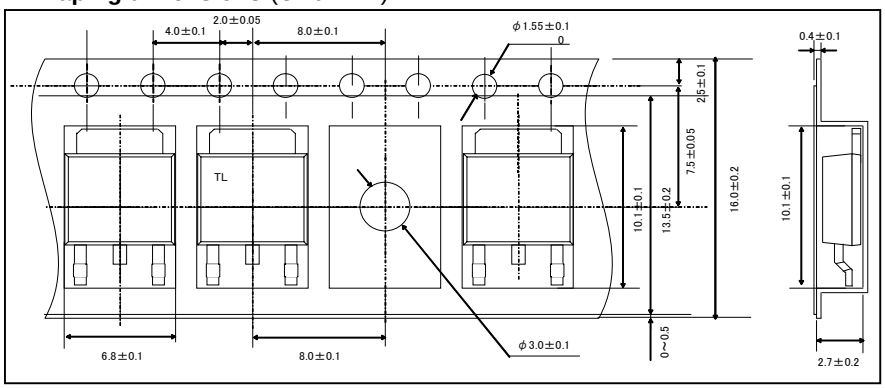
●Land size figure (Unit : mm)



●Structure



●Taping dimensions (Unit : mm)



●Absolute maximum ratings (Tc=25°C)

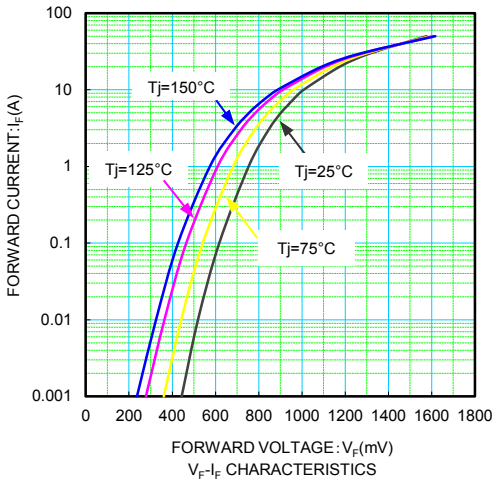
Parameter	Symbol	Conditions		Limits	Unit
Repetitive peak Reverse voltage	V_{RM}	Duty≤0.5		200	V
Reverse voltage	V_R	Direct voltage		200	V
Average rectified forward current	Io	60Hz half sin wave,resistive load	Tc=82°C	5	A
Forward current surge peak	I_{FSM}	60Hz half sin wave, Non-repetitive one cycle peak value, Tj=25°C		40	A
Junction temperature	Tj			150	°C
Storage temperature	Tstg			−55 to +150	°C

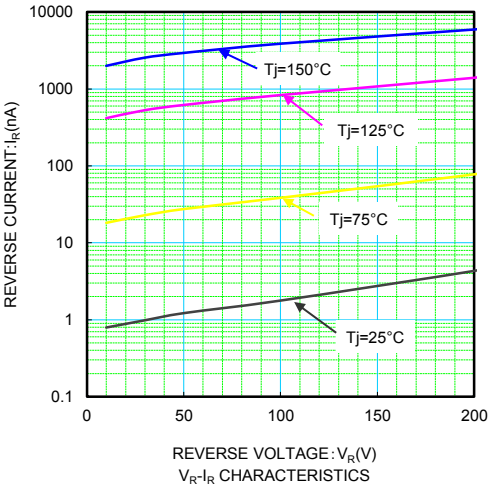
●Electrical characteristics (Tj=25°C)

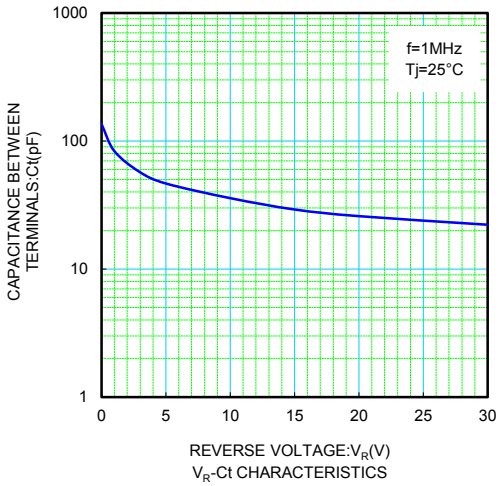
Parameter	Symbol	Conditions	Min.	Typ.	Max.	Unit
Forward voltage	V_F	I_F=5A	−	0.90	0.98	V
Reverse current	I_R	V_R=200V	−	0.01	10	μA
Reverse recovery time	trr	I_F=0.5A,I_R=1A,Irr=0.25×I_R	−	13	25	ns
Thermal Resistance	Rth(j-c)	junction to lead	−	−	12	°C/W

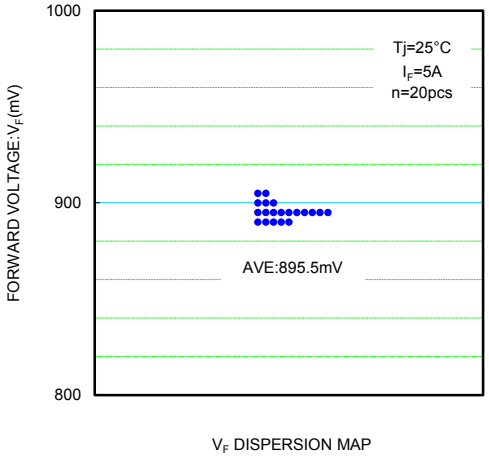
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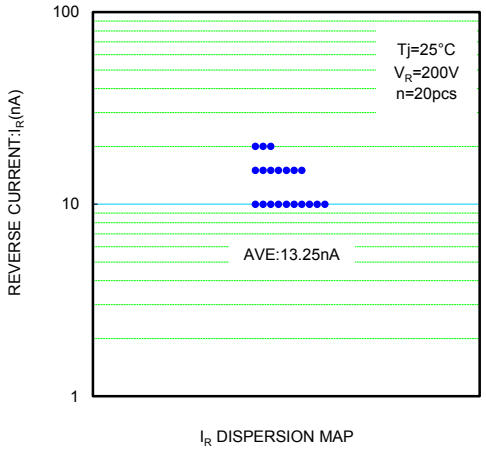
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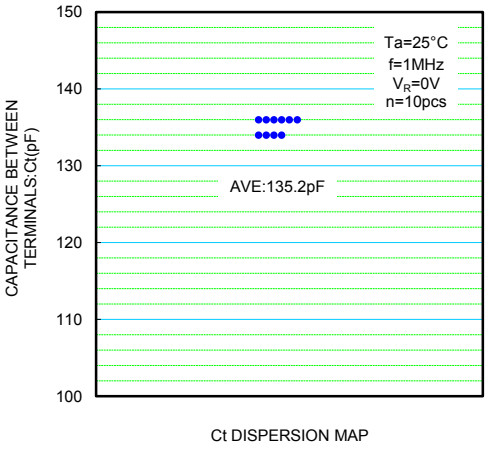






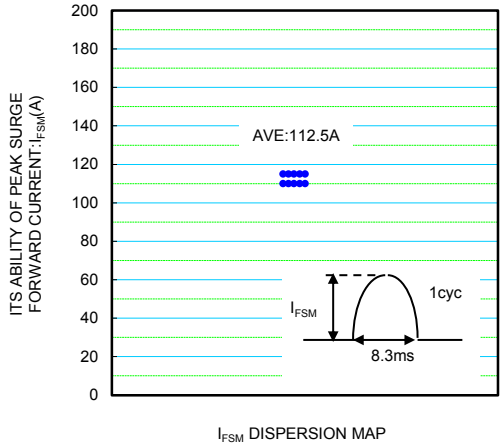




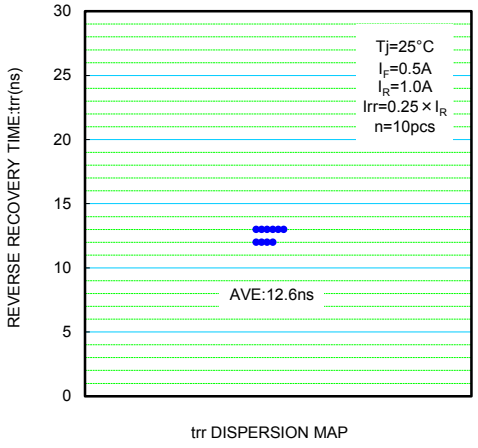


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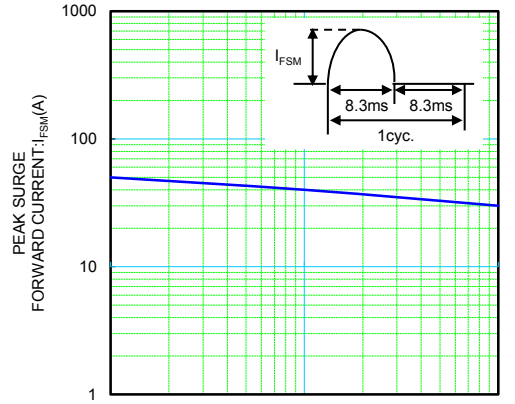
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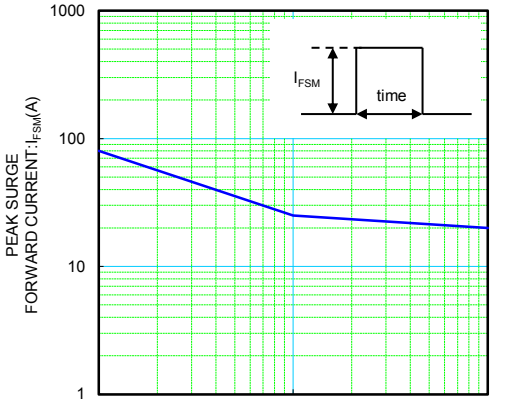
I_{FSM} DISPERSION MAP



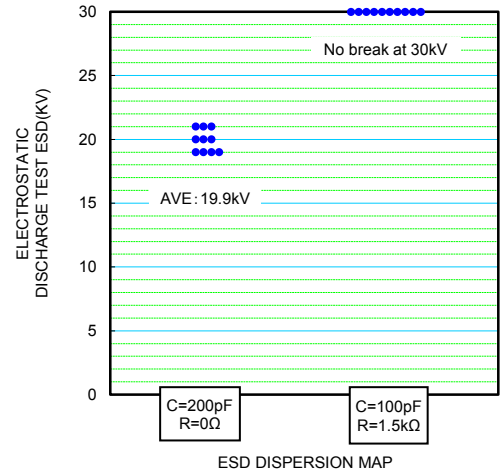
trr DISPERSION MAP



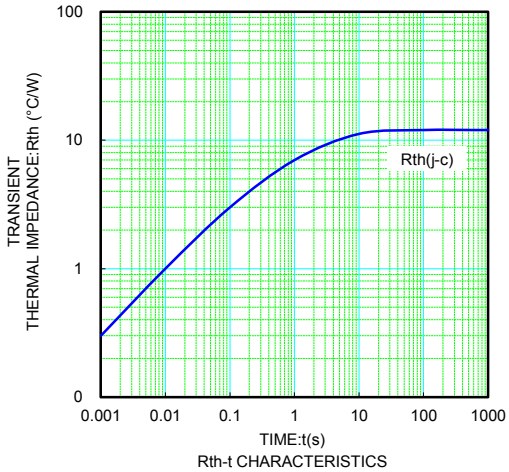
NUMBER OF CYCLES
I_{FSM}-CYCLE CHARACTERISTICS



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



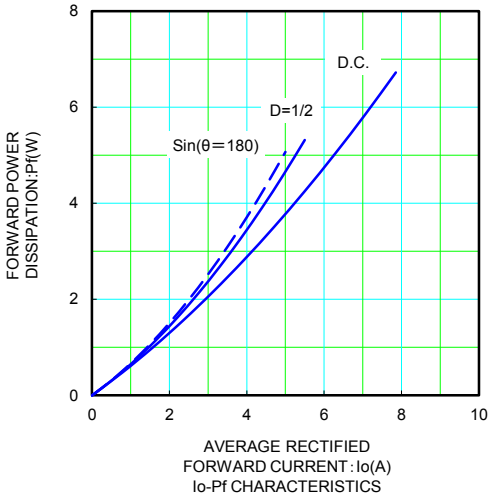
ESD DISPERSION MAP



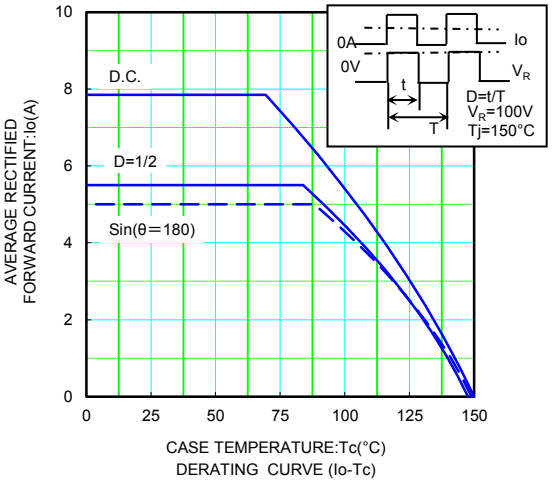
TIME:t(s)
Rth-t CHARACTERISTICS

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Io-Pf CHARACTERISTICS



DERATING CURVE (Io-Tc)

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