Super Fast Recovery Diode

RFN20T2D

●**Applications**

General rectification

●**Features**

1)Cathode common Dual type. (TO-220)

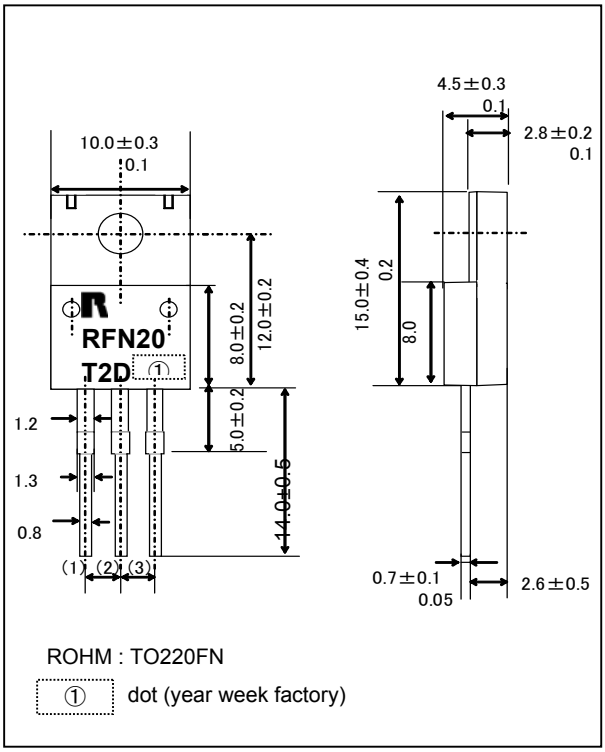
2)Low V_F

3)Low switching loss

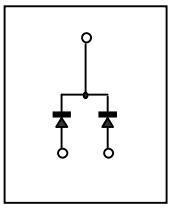
●**Construction**

Silicon epitaxial planer

●**Dimensions** (Unit : mm)



●**Structure**



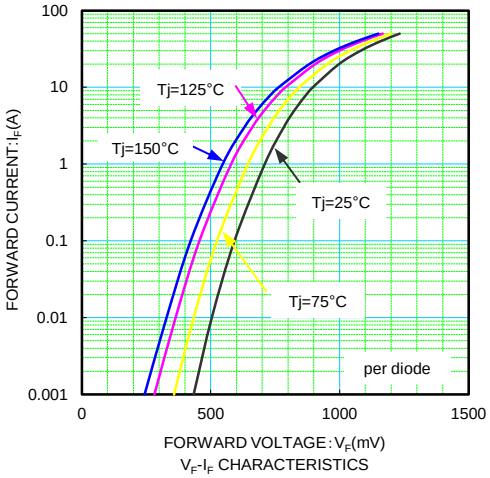
●**Absolute maximum ratings** (Tc=25°C)

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, Resistance load, 1/2Io at per diode	Tc=100°C	20	A
Forward current surge peak	I_{FSM}	60Hz half sin wave, Non-repetitive one cycle peak value, Tj=25°C		100	A
Junction temperature	Tj			150	°C
Storage temperature	Tstg			−55 to +150	°C

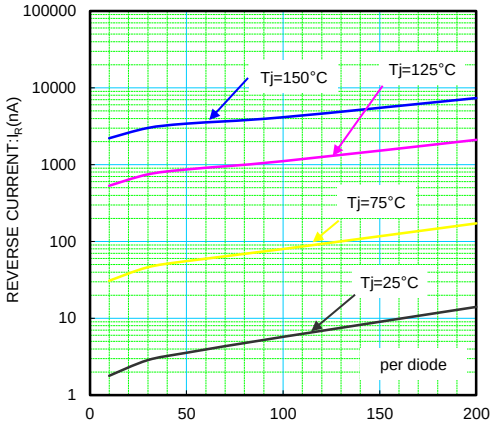
●**Electrical characteristics** (Tj=25°C)

Parameter	Symbol	Conditions	Min.	Typ.	Max.	Unit
Forward voltage	V_F	I_F=10A	—	0.9	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	—	16	30	ns
Thermal Resistance	Rth(j-c)	junction to case	—	—	2.0	°C/W

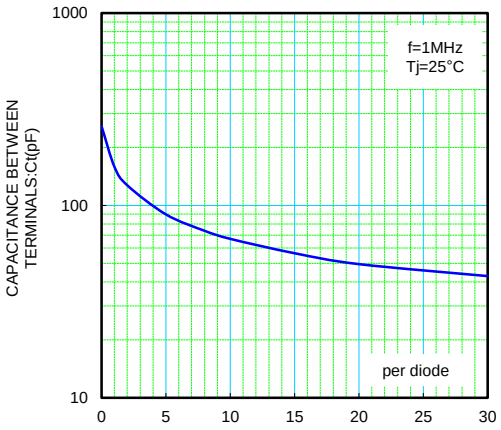
* per diode



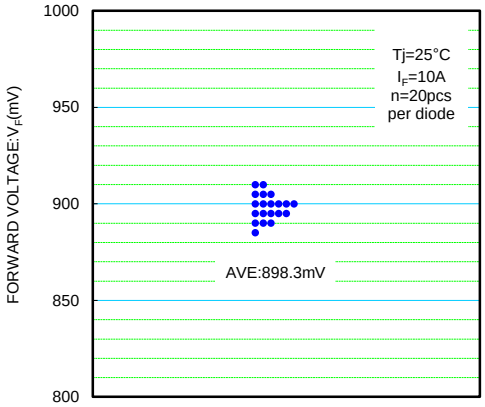
V_F-I_F CHARACTERISTICS



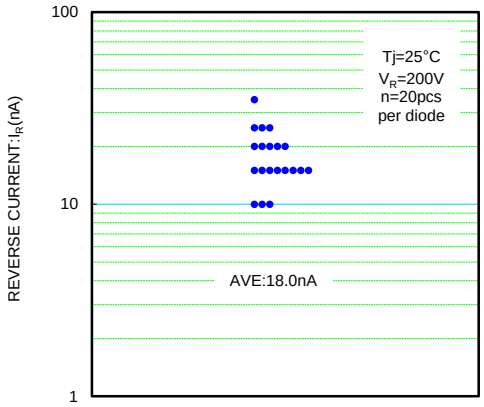
V_R-I_R CHARACTERISTICS



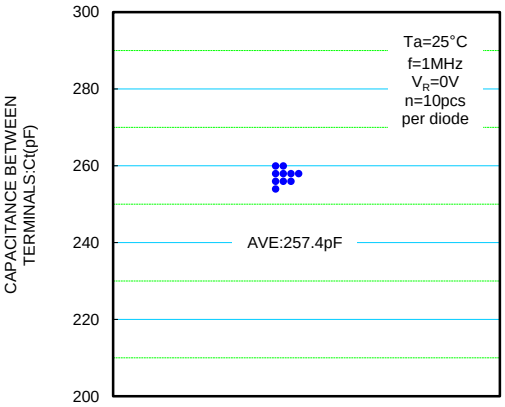
V_R-Ct CHARACTERISTICS



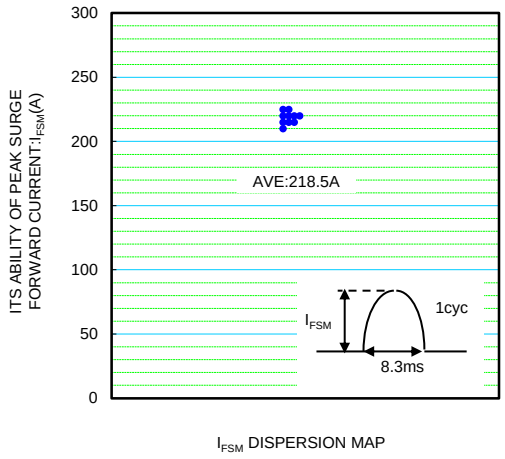
V_F DISPERSION MAP



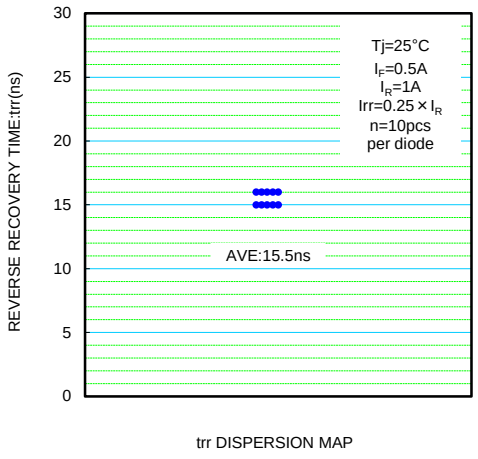
I_R DISPERSION MAP



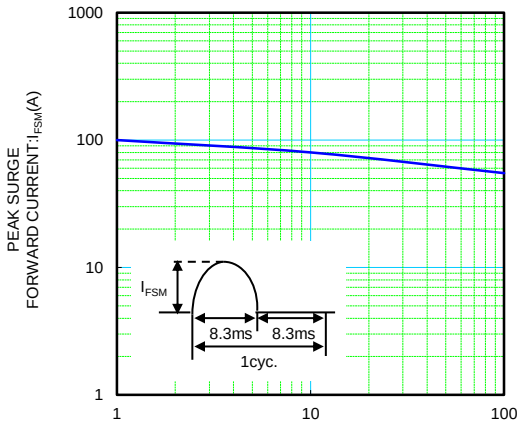
Ct DISPERSION MAP



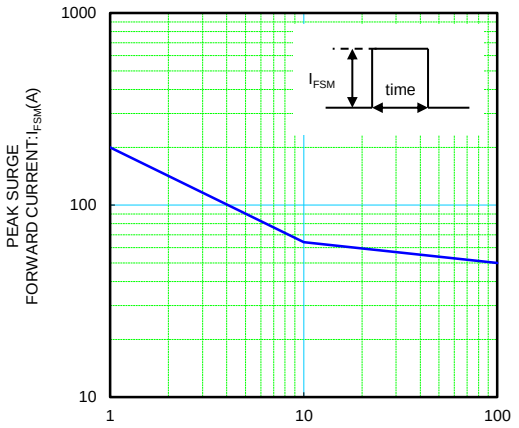
I_{FSM} DISPERSION MAP



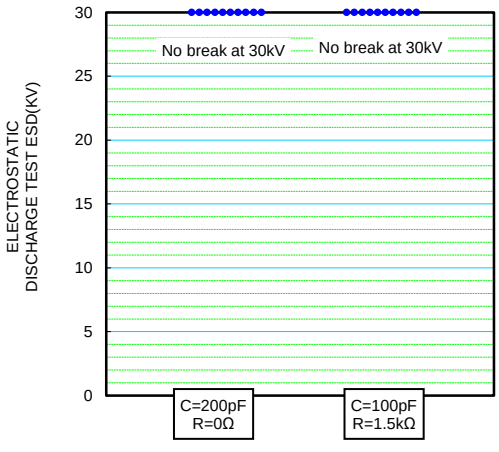
trr DISPERSION MAP



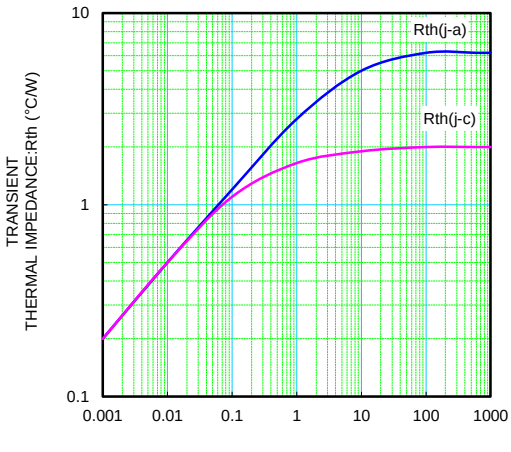
NUMBER OF CYCLES
I_{FSM}-CYCLE CHARACTERISTICS



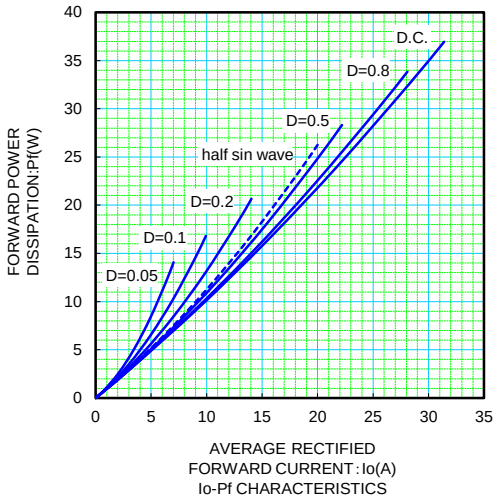
TIME:t(ms)
I_{FSM}-t CHARACTERISTICS



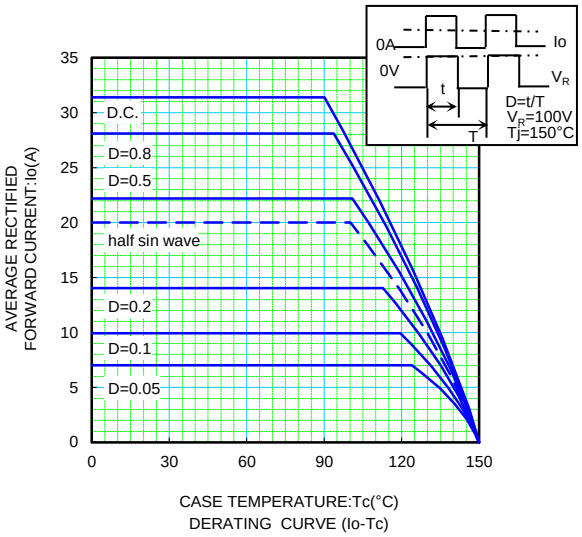
ESD DISPERSION MAP



TIME:t(s)
Rth-t CHARACTERISTICS



AVERAGE RECTIFIED
FORWARD CURRENT : Io(A)
Io-Pf CHARACTERISTICS



CASE TEMPERATURE:Tc(°C)
DERATING CURVE (Io-Tc)

Notes

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