

Super Fast Recovery Diode

RFU20TM5S

●Series

Ultra Fast Recovery

●Applications

General rectification

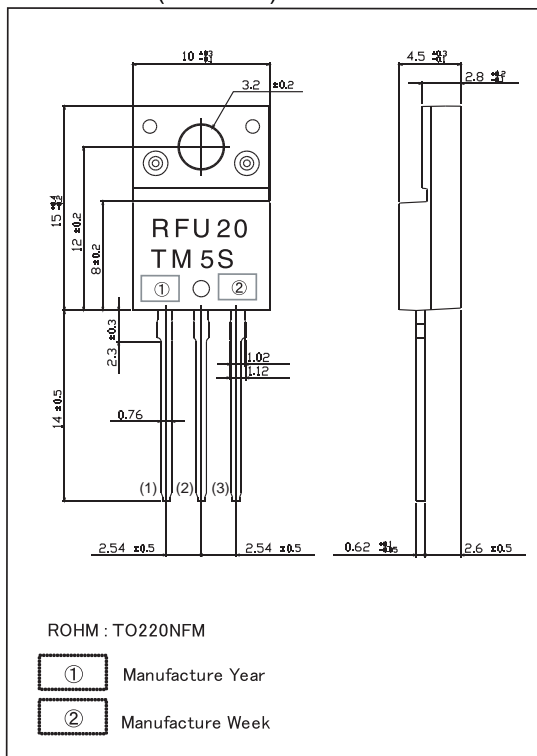
●Features

- 1)Cathode common Single type.(TO-220)
- 2)Ultra high switching speed

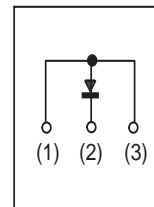
●Construction

Silicon epitaxial planer

●Dimensions(Unit : mm)



●Structure



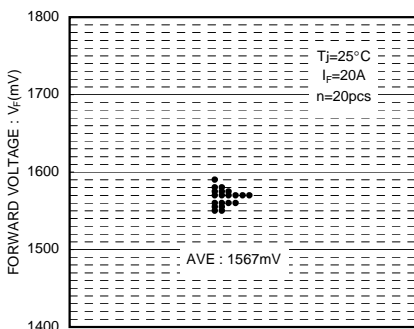
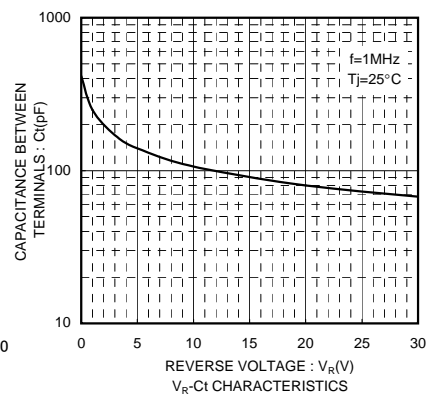
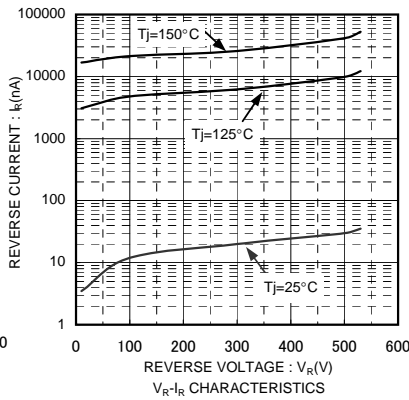
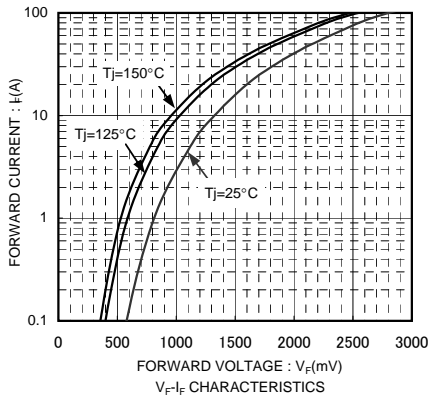
●Absolute maximum ratings (Tc=25°C)

Parameter	Symbol	Conditions	Limits	Unit
Repetitive peak reverse voltage	V_{RM}	Duty \leq 0.5	530	V
Reverse voltage	V_R	Direct voltage	530	V
Average rectified forward current	I_o	60Hz half sin wave, Resistance load, Tc=95°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		-55to+150	°C

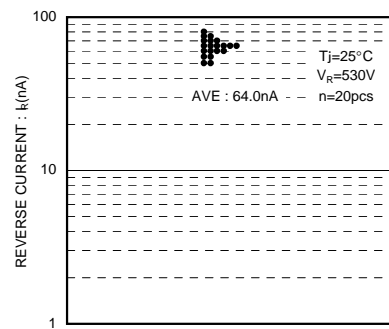
●Electrical characteristics(Tj=25°C)

Parameter	Symbol	Conditions	Min.	Typ.	Max.	Unit
Forward voltage	V_F	$I_F=20A$	-	1.65	2	V
Reverse current	I_R	$V_R=530V$	-	0.05	10	μA
Reverse recovery time	t _{rr}	$I_F=0.5A, I_R=1A, I_{rr}=0.25 \times I_R$	-	23	30	ns
Thermal Resistance	Rth(j-c)	junction to case	-	-	1.8	°C/W

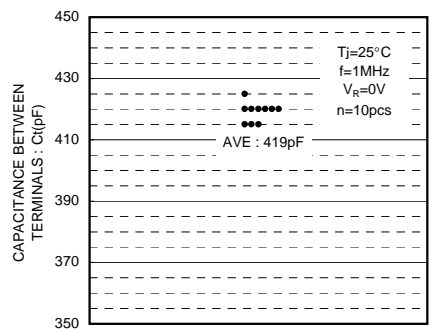
●Electrical characteristic curves



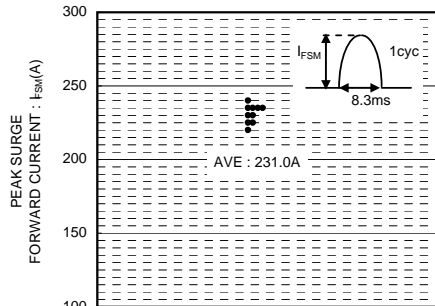
V_F DISPERSION MAP



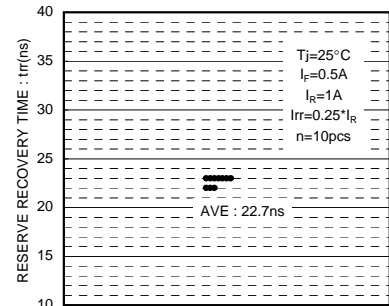
I_R DISPERSION MAP



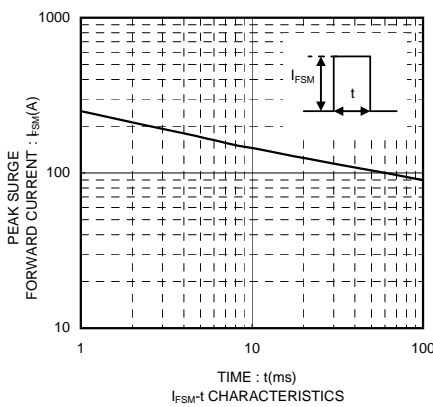
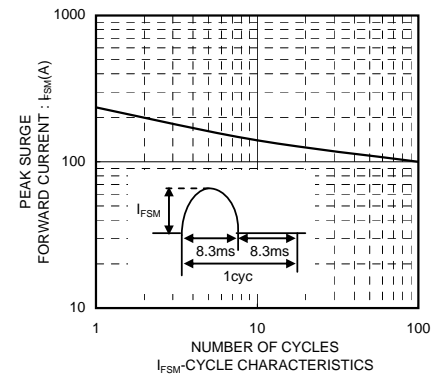
C_t DISPERSION MAP



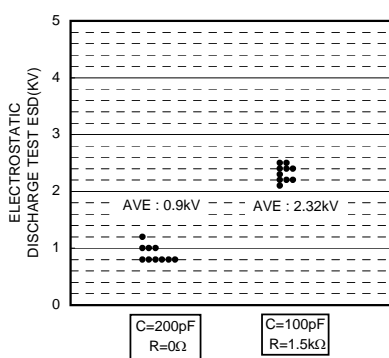
I_{FSM} DISPERSION MAP



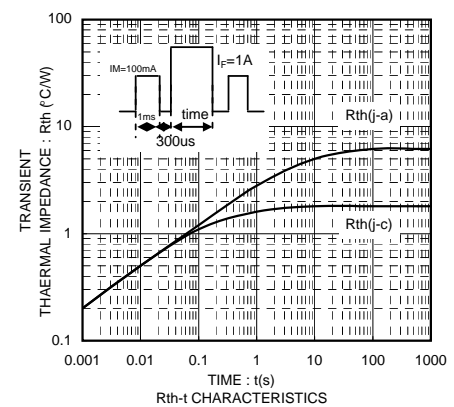
t_{rr} DISPERSION MAP

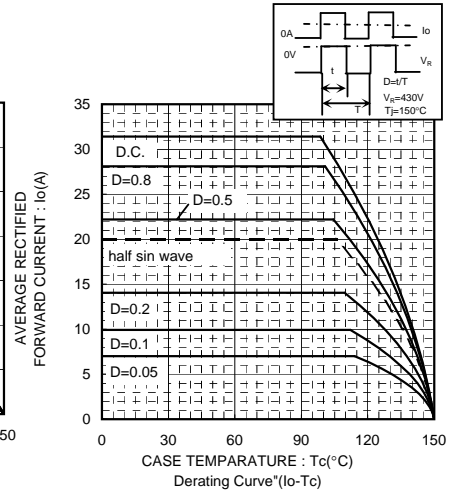
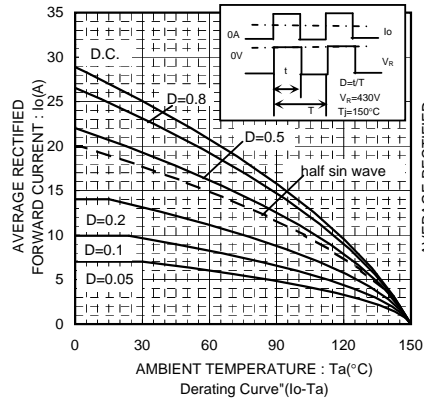
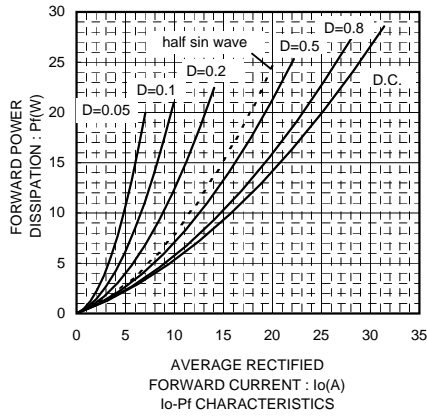


I_{FSM} - t CHARACTERISTICS



ESD DISPERSION MAP





Notes

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