Super Fast Recovery Diode

RFUS20TM4S

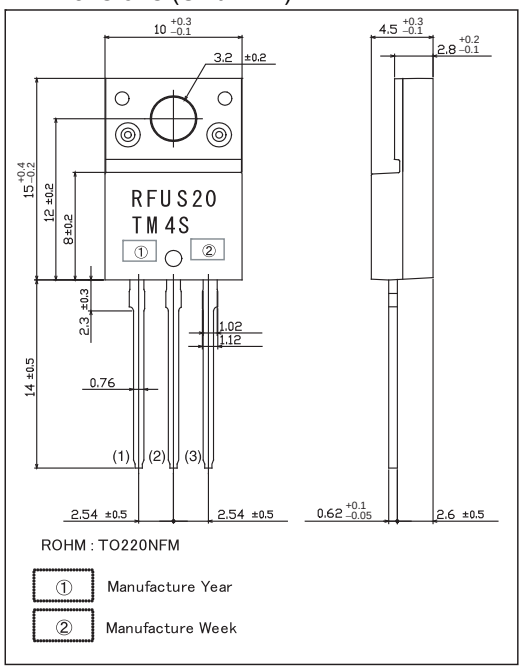
●**Series**
Ultra Fast Recovery

●**Applications**
General rectification

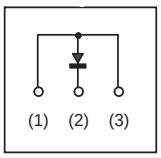
●**Features**
1)Ultra low switching loss
2)High current overload capacity
3)Cathode common single type

●**Construction**
Silicon epitaxial planer

●**Dimensions** (Unit : mm)



●**Structure**



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

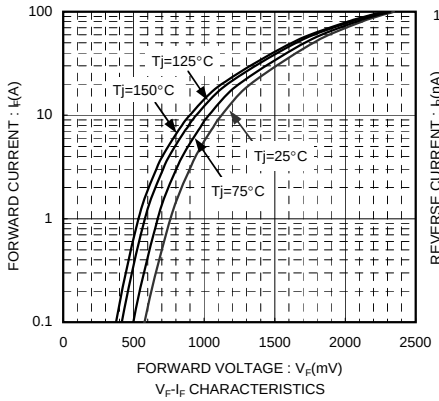
Parameter	Symbol	Conditions	Limits	Unit
Repetitive peak reverse voltage	V_{RM}	Duty≤0.5	430	V
Reverse voltage	V_R	Direct voltage	430	V
Average rectified forward current	Io	60Hz half sin wave, Resistance load, Tc=68°C	20	A
Forward current surge peak	I_{FSM}	60Hz half sin wave, Non-repetitive one cycle peak value, Tj=25 °C	100	A
Junction temperature	Tj		150	°C
Storage temperature	Tstg		-55to+150	°C

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

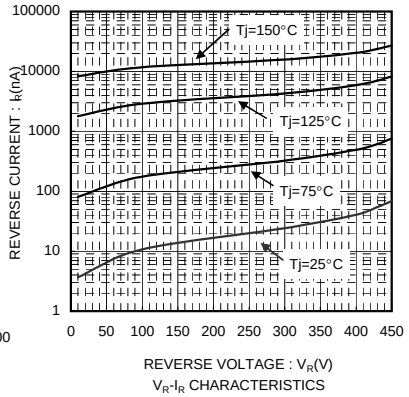
Parameter	Symbol	Conditions	Min.	Typ.	Max.	Unit
Forward voltage	V_F	I_F=20A	-	1.4	1.6	V
Reverse current	I_R	V_R=430V	-	0.05	10	μA
Reverse recovery time	trr	I_F=0.5A,I_R=1A,Irr=0.25×I_R	-	24	35	ns
Thermal resistance	Rth(j-c)	junction to case	-	-	2	°C/W

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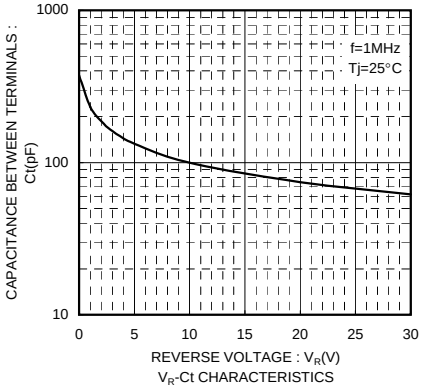
●Electrical characteristic curves



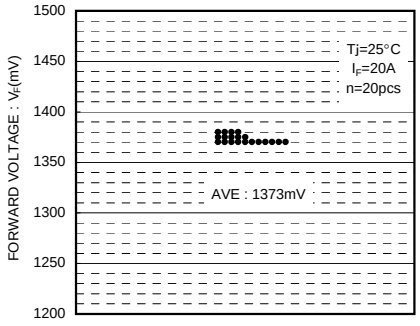
V_F-I_F CHARACTERISTICS



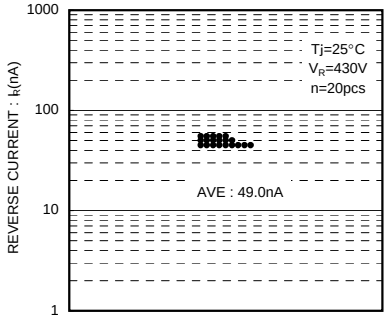
V_R-I_R CHARACTERISTICS



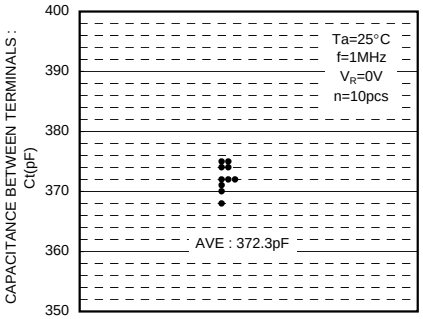
V_R-Ct CHARACTERISTICS



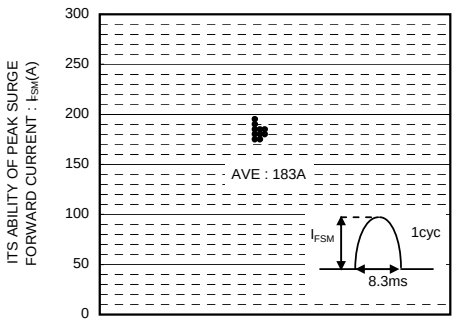
V_F DISPERSION MAP



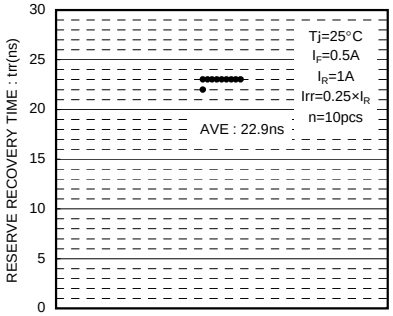
I_R DISPERSION MAP



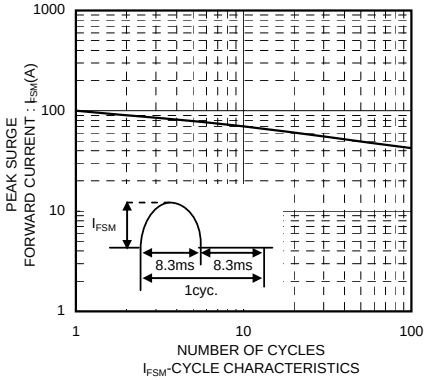
Ct DISPERSION MAP



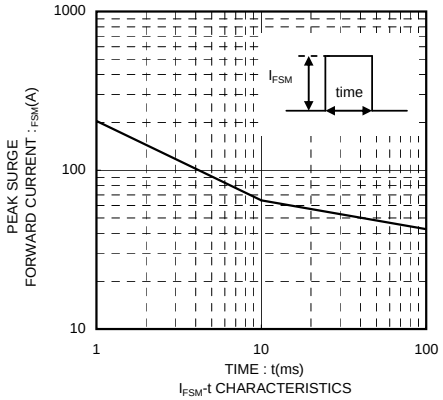
I_{FSM} DISRESION MAP



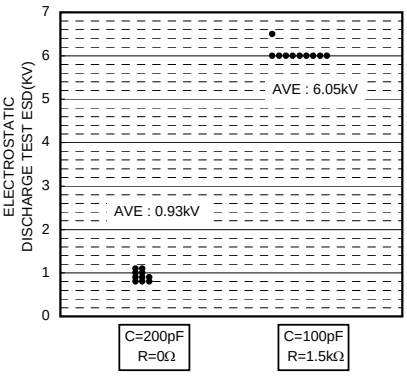
trr DISPERSION MAP



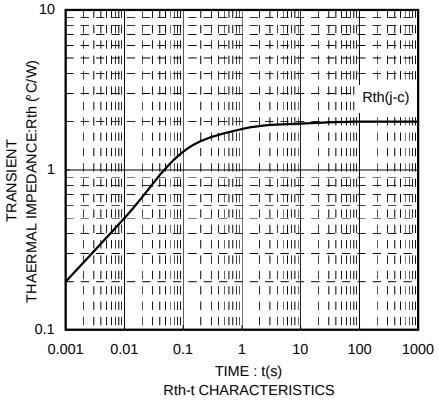
I_{FSM}-CYCLE CHARACTERISTICS



I_{FSM}-t CHARACTERISTICS

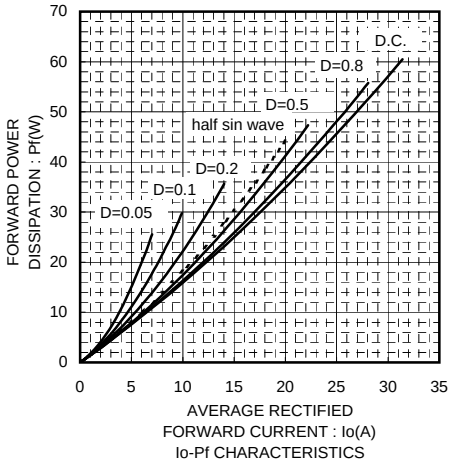


ESD DISPERSION MAP

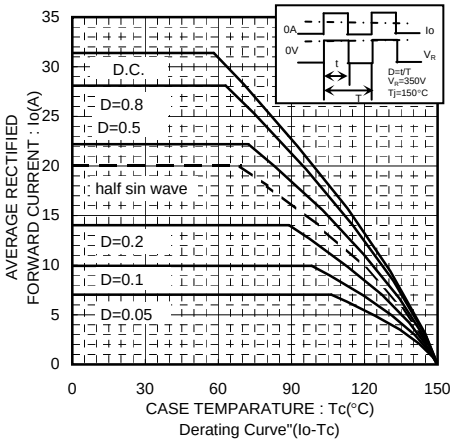


Rth-t CHARACTERISTICS

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Io-Pf CHARACTERISTICS



CASE TEMPARATURE : Tc(°C)
Derating Curve"(Io-Tc)

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