

Super Fast Recovery Diode

RFU5TF6S

●Series

Ultra Fast Recovery

●Applications

General rectification

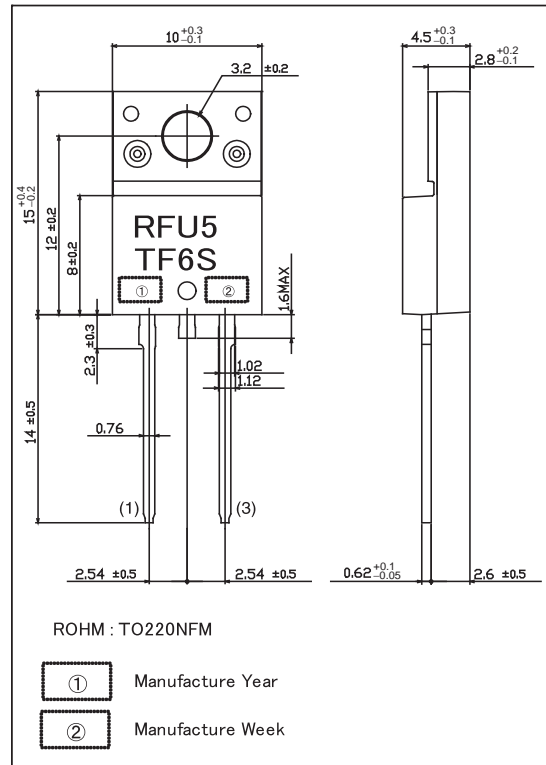
●Features

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

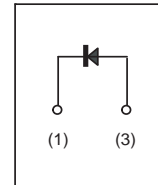
●Construction

Silicon epitaxial planar

●Dimensions(Unit : mm)



●Structure



●Absolute maximum ratings(Tc=25°C)

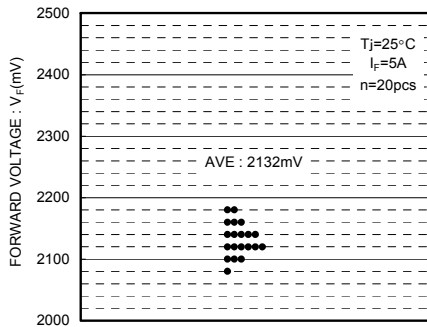
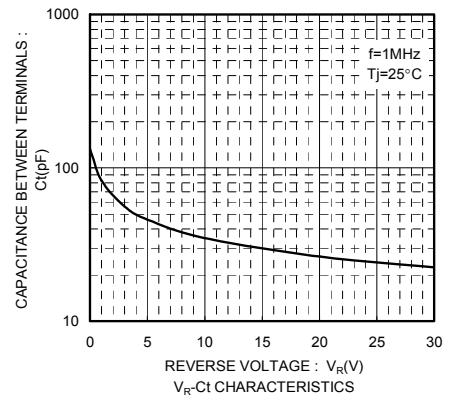
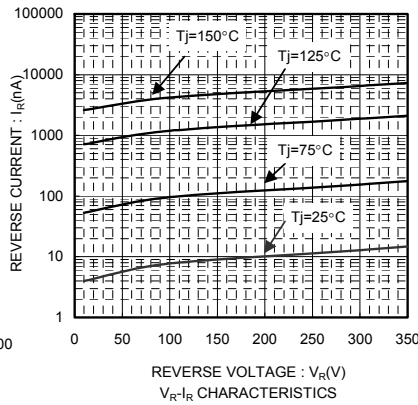
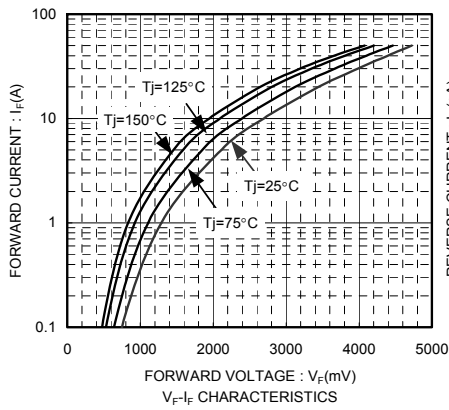
Parameter	Symbol	Conditions	Limits	Unit
Repetitive peak reverse voltage	V_{RM}	Duty \leq 0.5	600	V
Reverse voltage	V_R	Direct voltage	600	V
Average rectified forward current	I_o	60Hz half sin wave, Resistance load, Tc=93°C	5.0	A
Forward current surge peak	I_{FSM}	60Hz half sin wave, Non-repetitive one cycle peak value, Tj=25°C	60	A
Junction temperature	Tj		150	°C
Storage temperature	Tstg		-55 to +150	°C

●Electrical characteristics(Tj=25°C)

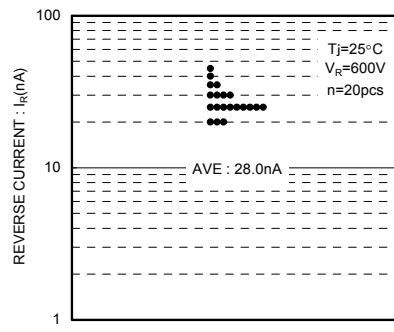
Parameter	Symbol	Conditions	Min.	Typ.	Max.	Unit
Forward voltage	V_F	$I_F=5.0A$	-	2.2	2.8	V
Reverse current	I_R	$V_R=600V$	-	0.02	10	μA
Reverse recovery time (*)	trr	$I_F=0.5A, I_R=1A, I_{rr}=0.25 \times I_R$	-	15	25	ns
Thermal resistance(*)	Rth(j-c)	junction to case	-	-	4	°C/W

(*) : Design assurance without measurement.

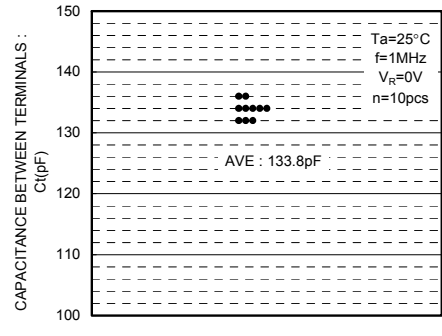
●Electrical characteristic curves



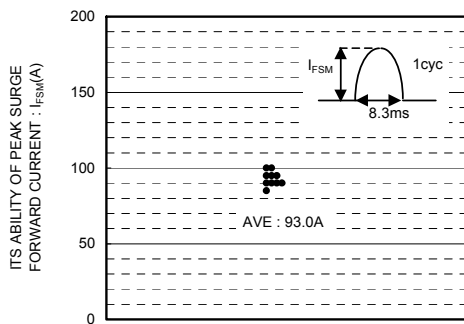
V_F DISPERSION MAP



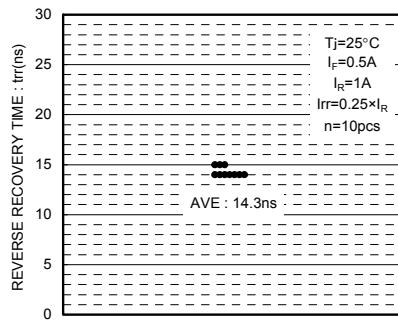
I_R DISPERSION MAP



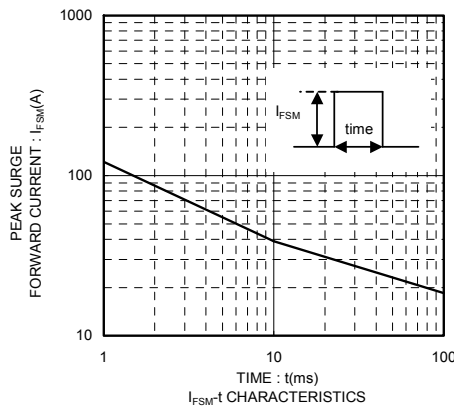
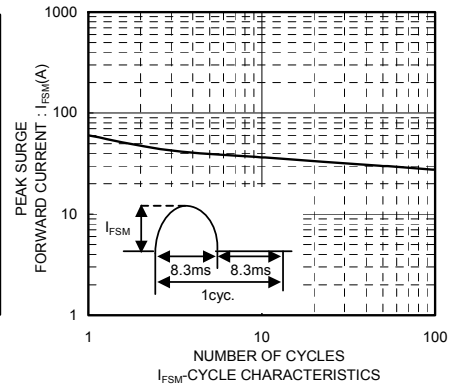
C_t DISPERSION MAP



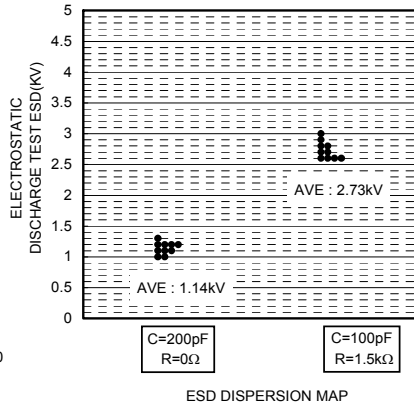
I_{FSM} DISPERSION MAP



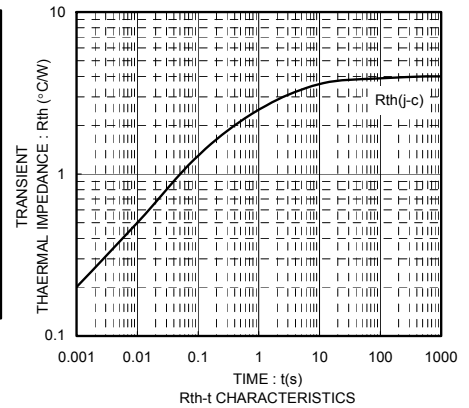
t_{rr} DISPERSION MAP



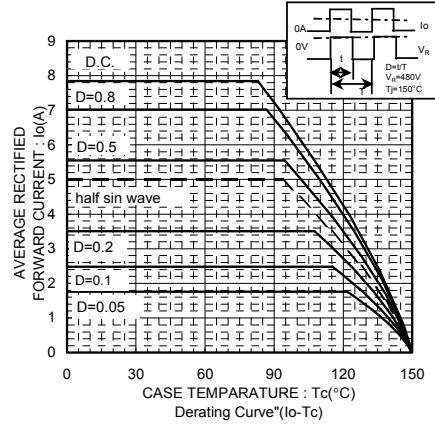
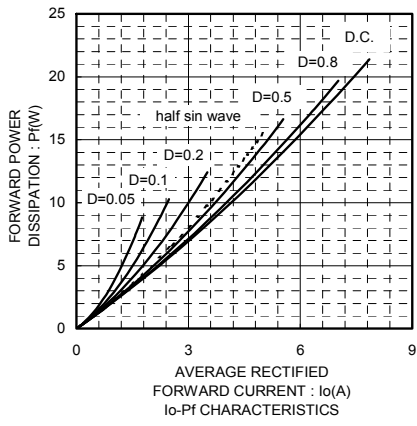
I_{FSM} - t CHARACTERISTICS



ESD DISPERSION MAP



R_{th} - t CHARACTERISTICS



Notes

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