

Super Fast Recovery Diode

RFU10TF6S

●Series

Ultra Fast Recovery

●Applications

General rectification

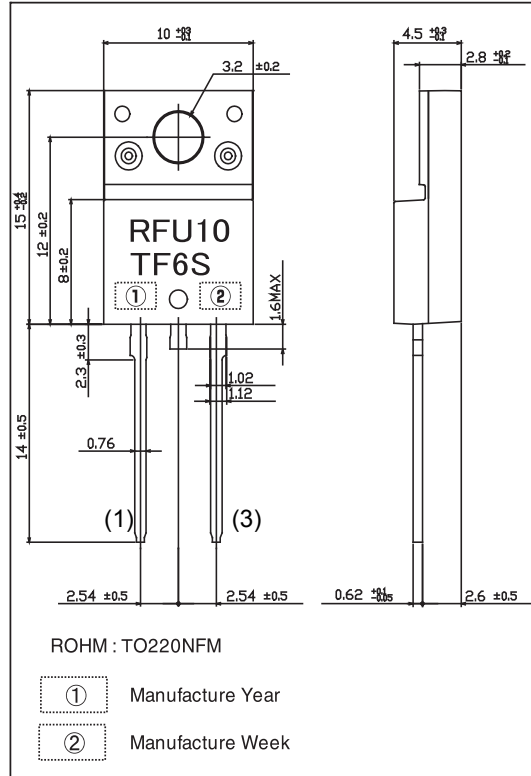
●Features

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

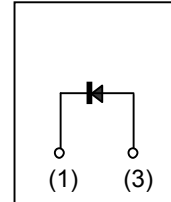
●Construction

Silicon epitaxial plnner

●Dimentions(Unit : mm)



●Structure



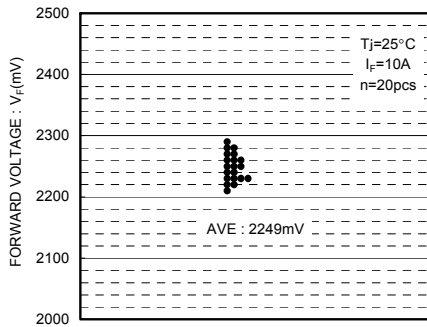
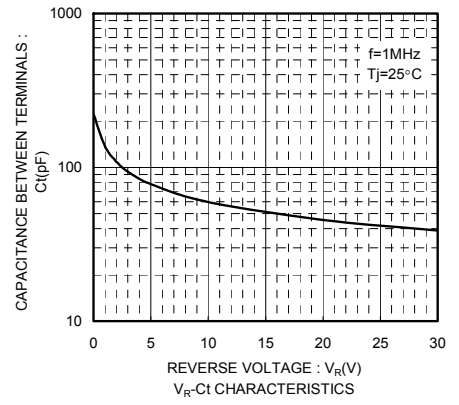
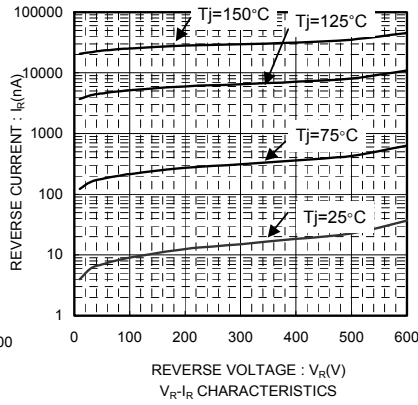
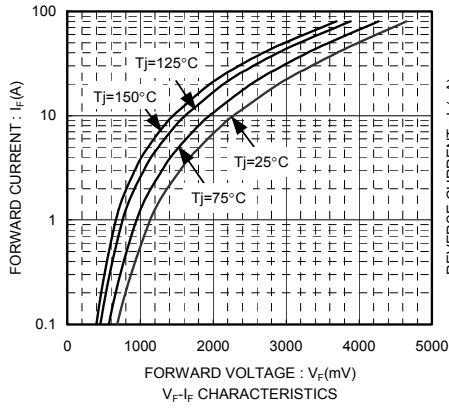
●Absolute maximum ratings(Tc=25°C)

Parameter	Symbol	Conditions	Limits	Unit
Repetitive peak reverse voltage	V_{RM}	Duty ≤ 0.5	600	V
Reverse voltage	V_R	Direct voltage	600	V
Average rectified forward current	I_O	60Hz half sin wave, Resistance load, $T_C=50^\circ C$	10	A
Forward current surge peak	I_{FSM}	60Hz half sin wave, Non-repetitive one cycle peak value, $T_j=25^\circ C$	100	A
Junction temperature	T_j		150	°C
Storage temperature	T_{stg}		-55 to +150	°C

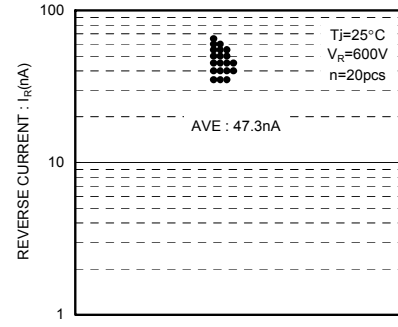
●Electrical characteristics(Tj=25°C)

Parameter	Symbol	Conditions	Min.	Typ.	Max.	Unit
Forward voltage	V_F	$I_F=10A$	-	2.3	2.8	V
Reverse current	I_R	$V_R=600V$	-	0.03	10	μA
Reverse recovery time	t_{rr}	$I_F=0.5A, I_R=1A, I_{rr}=0.25 \times I_R$	-	16	25	ns
Thermal Resistance	$R_{th(j-c)}$	junction to case	-	-	3.5	°C / W

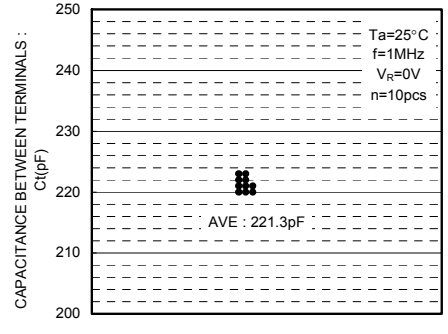
●Electrical characteristics curves



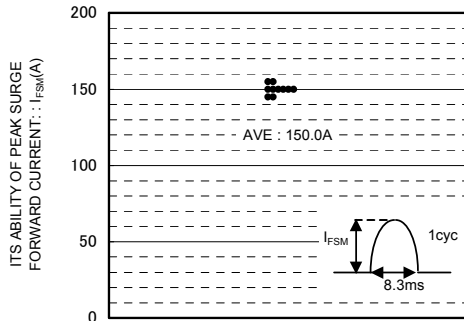
V_F DISPERSION MAP



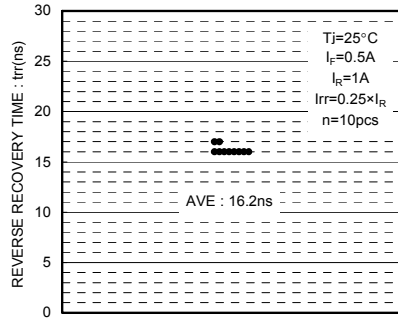
I_R DISPERSION MAP



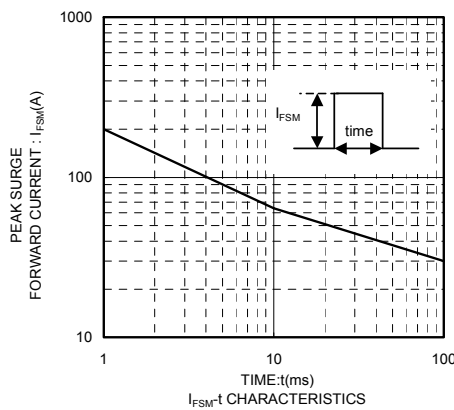
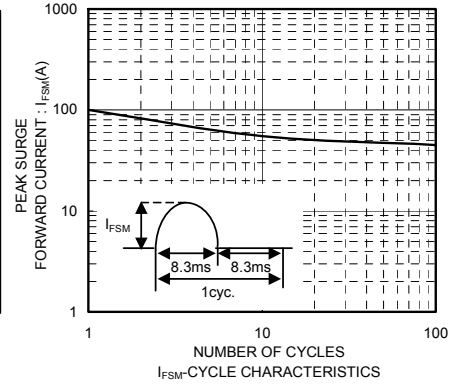
C_t DISPERSION MAP



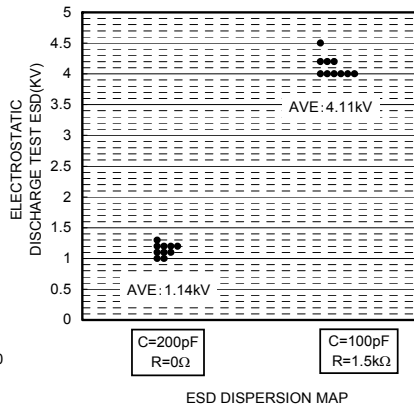
I_{FSM} DISRESION MAP



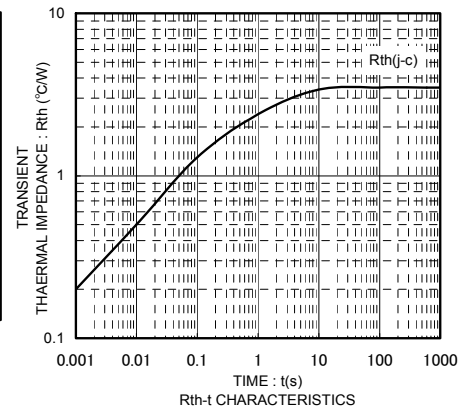
t_{tr} DISPERSION MAP



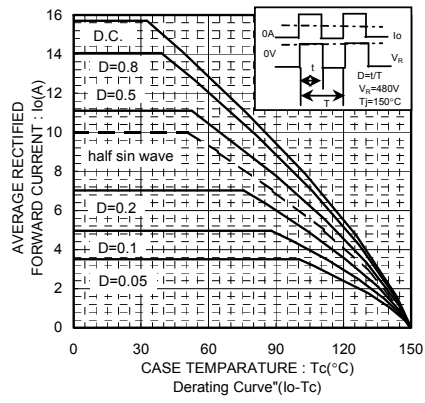
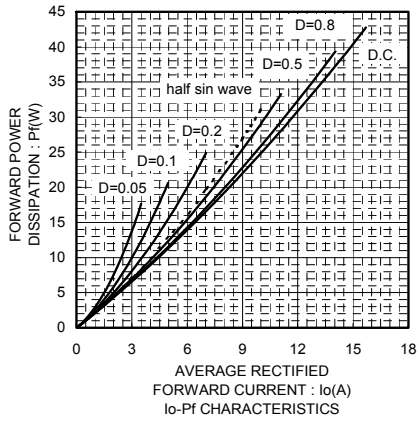
I_{FSM} - t CHARACTERISTICS



ESD DISPERSION MAP



R_{th} - t CHARACTERISTICS



Notes

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