

# Super Fast Recovery Diode

## RF1501TF3S

●Series

Standard Fast Recovery

●Applications

General rectification

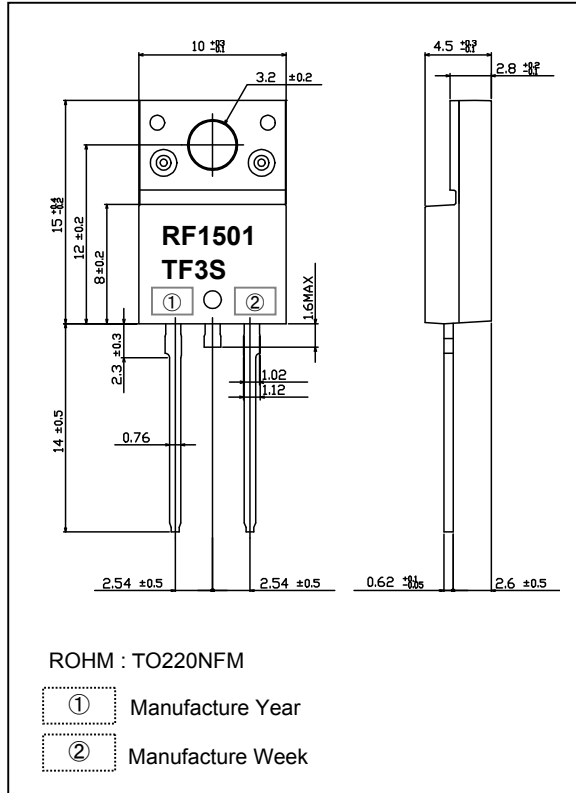
●Features

- 1) Ultra low switching loss
- 2) High current overload capacity

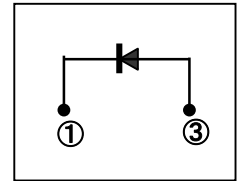
●Construction

Silicon epitaxial planer

●Dimensions (Unit : mm)



●Structure

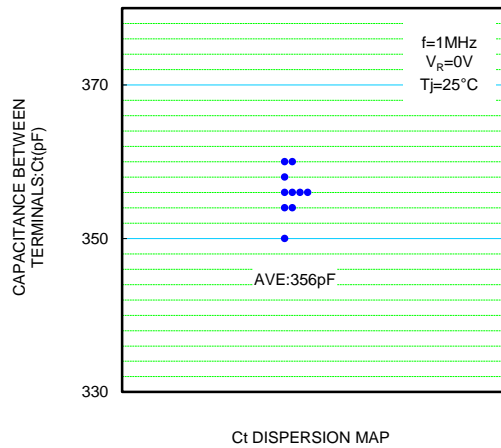
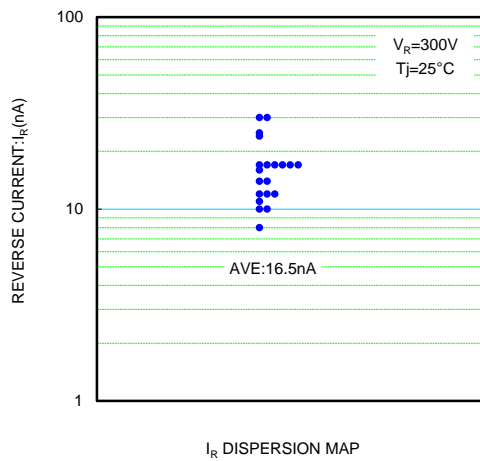
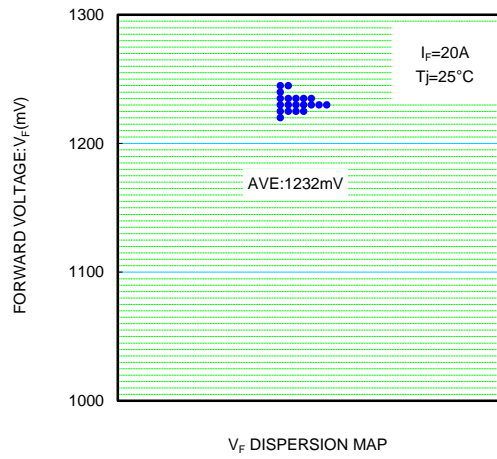
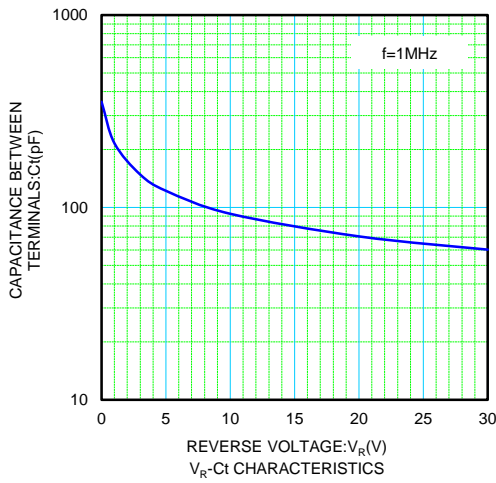
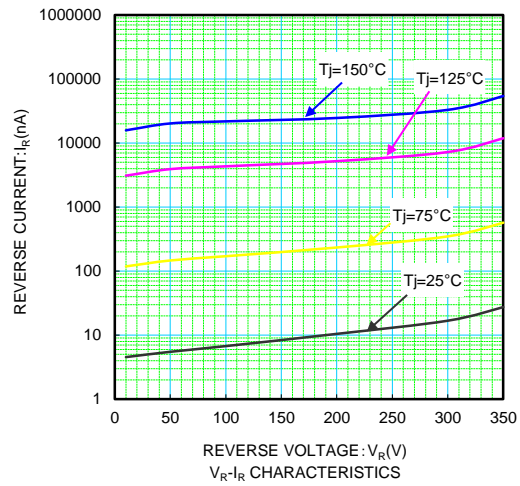
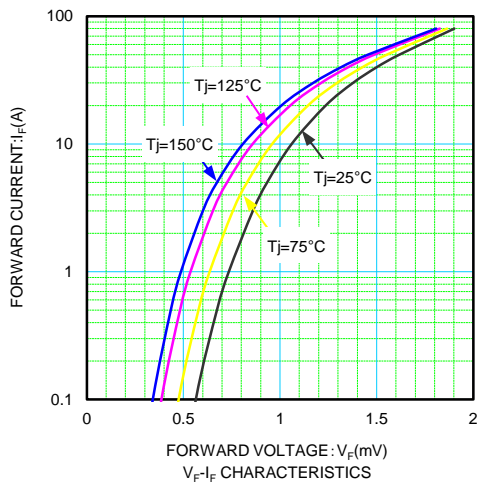


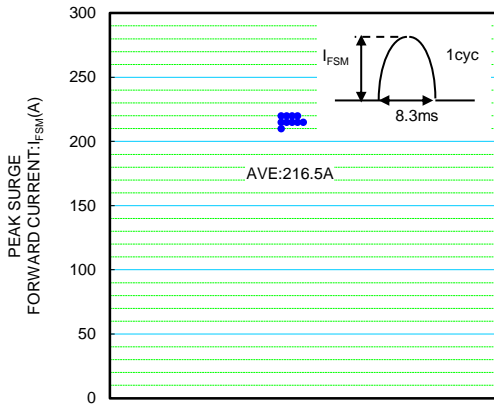
●Absolute maximum ratings (Tc=25°C)

Parameter	Symbol	Conditions	Limits	Unit
Repetitive peak reverse voltage	$V_{RM}$	Duty $\leq$ 0.5	350	V
Reverse voltage	$V_R$	Direct voltage	300	V
Average rectified forward current	$I_o$	60Hz half sin wave, Resistance load, Tc=37°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

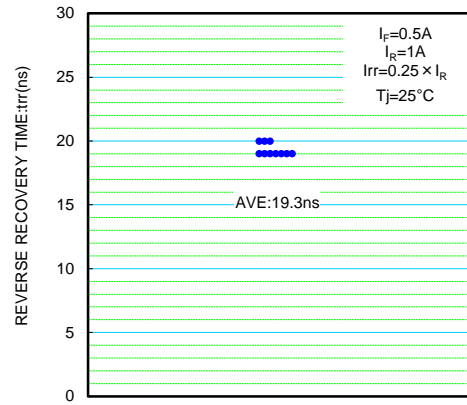
●Electrical characteristics (Tj=25°C)

Parameter	Symbol	Conditions	Min.	Typ.	Max.	Unit
Forward voltage	$V_F$	$I_F=20A$	—	1.35	1.5	V
Reverse current	$I_R$	$V_R=300V$	—	0.06	10	$\mu A$
Reverse recovery time	trr	$I_F=0.5A, I_R=1A, I_{rr}=0.25 \times I_R$	—	22	30	ns
Thermal resistance	Rth(j-c)	junction to case	—	—	3	°C/W

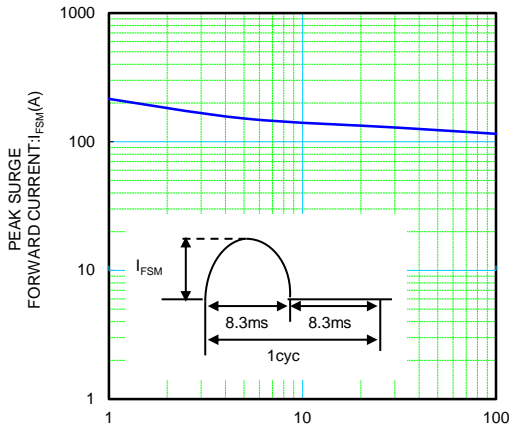




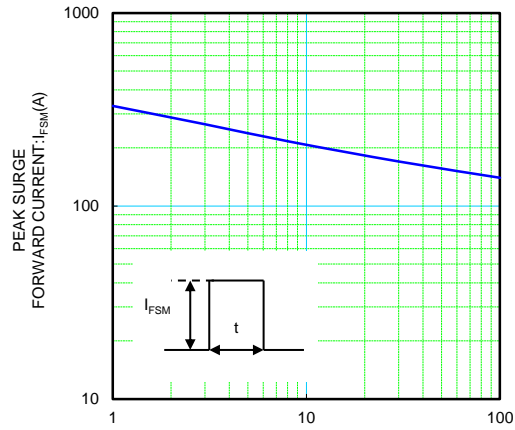
$I_{FSM}$  DISPERSION MAP



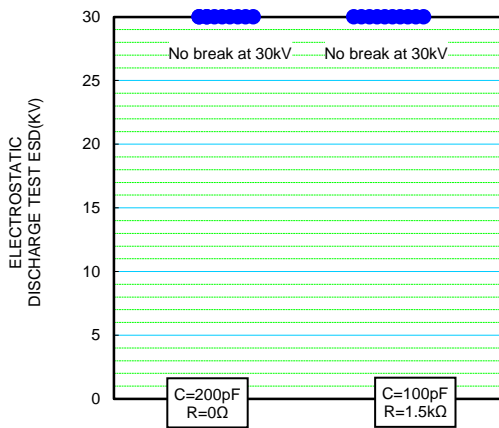
$t_{rr}$  DISPERSION MAP



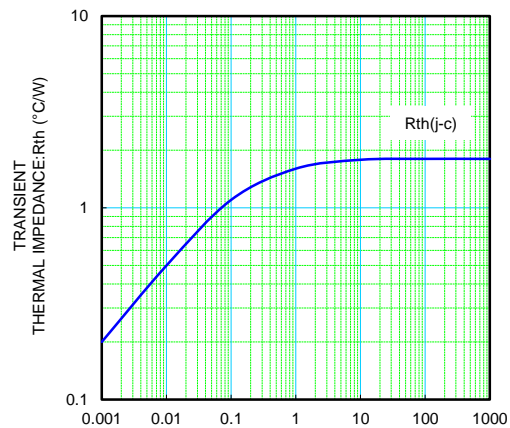
$I_{FSM}$ -CYCLE CHARACTERISTICS



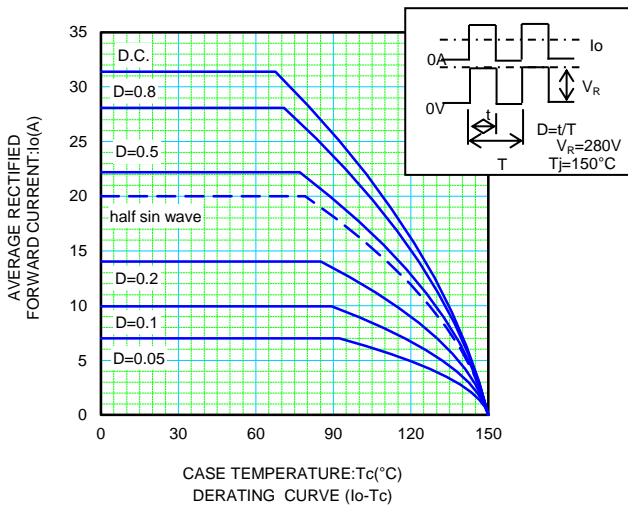
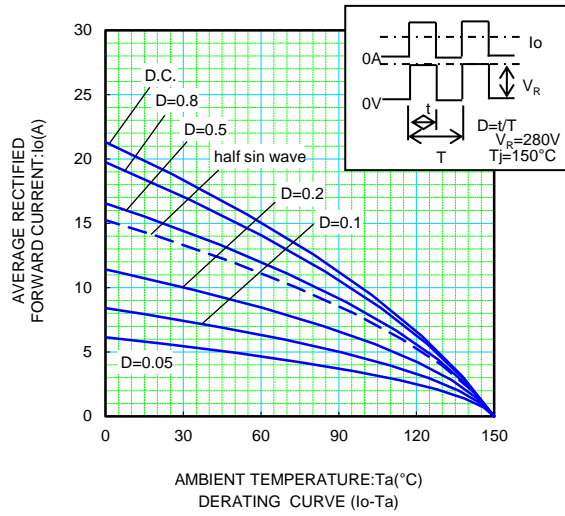
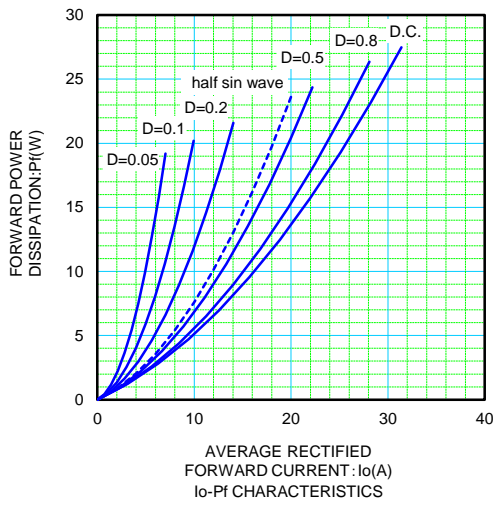
$I_{FSM}$ - $t$  CHARACTERISTICS



ESD DISPERSION MAP



$R_{th}$ - $t$  CHARACTERISTICS



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