

# Super Fast Recovery Diode

## RF1005TF6S

●Series

Standard Fast Recovery

●Applications

General rectification

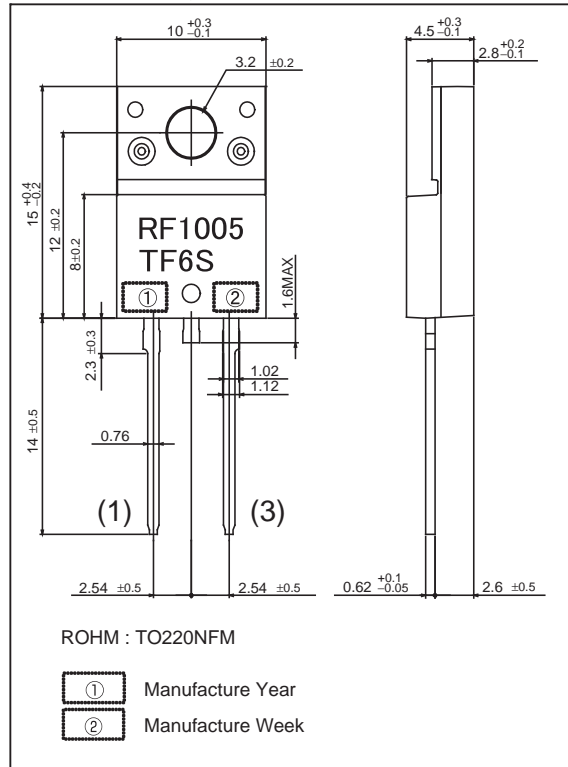
●Features

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

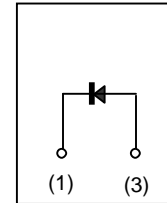
●Construction

Silicon epitaxial planer

●Dimensions (Unit : mm)



●Structure



●Absolute maximum ratings (T<sub>c</sub>=25°C)

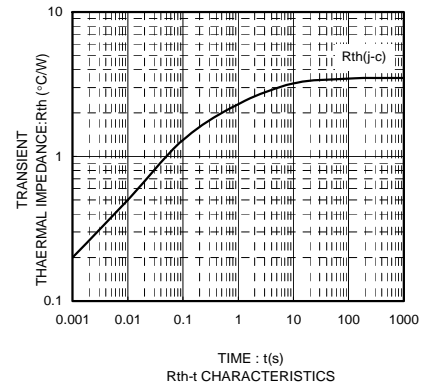
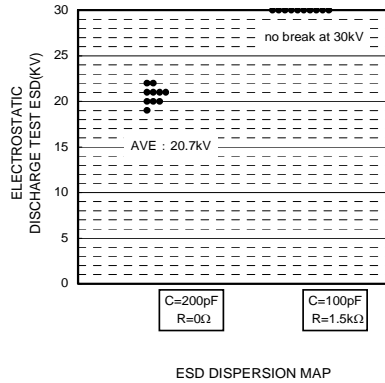
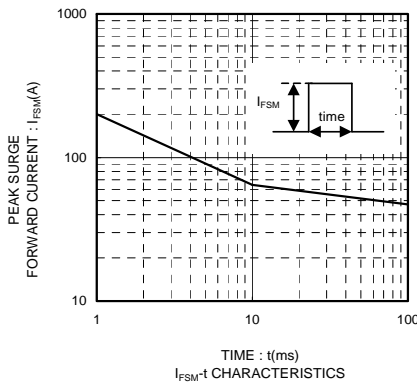
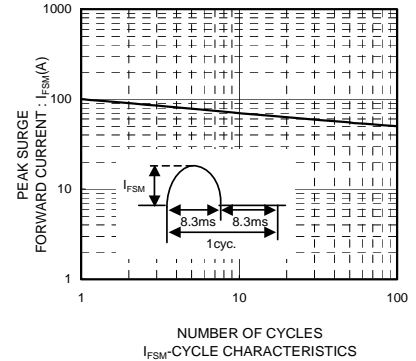
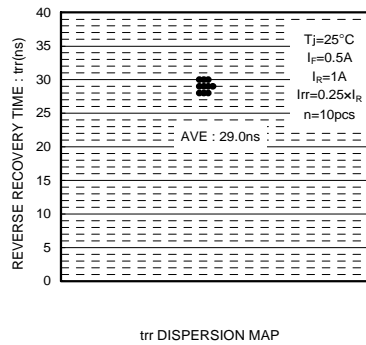
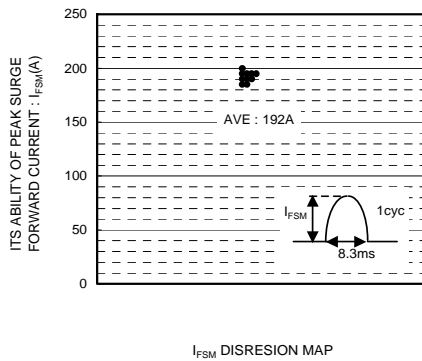
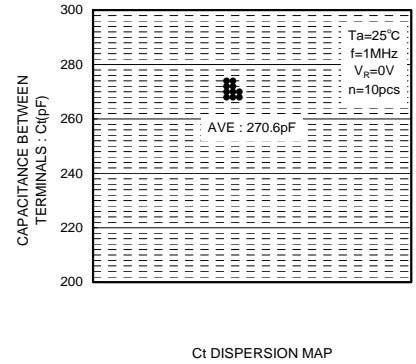
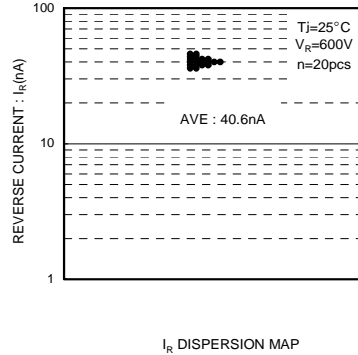
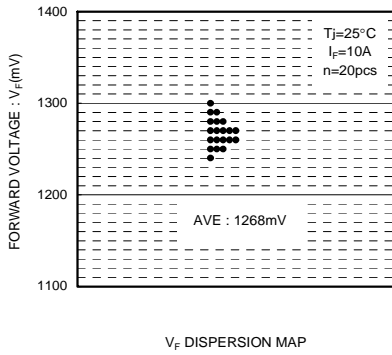
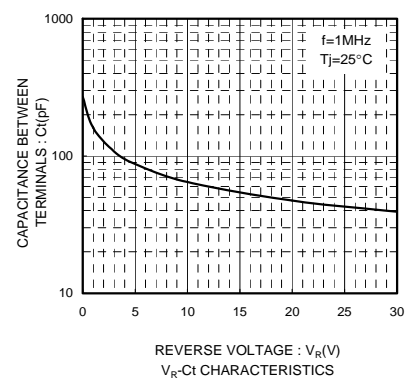
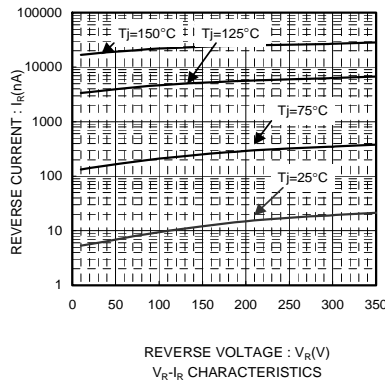
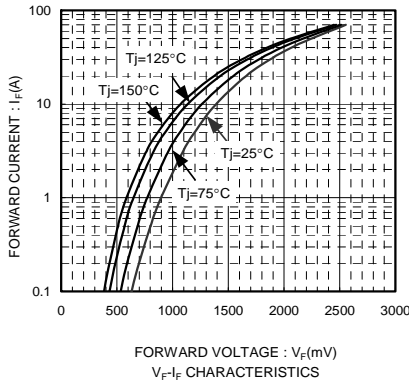
Parameter	Symbol	Conditions	Limits	Unit
Repetitive peak reverse voltage	V <sub>RM</sub>	Duty ≤ 0.5	600	V
Reverse voltage	V <sub>R</sub>	Direct voltage	600	V
Average rectified forward current	I <sub>o</sub>	60Hz half sin wave, Resistance load, T <sub>c</sub> =78°C	10	A
Forward current surge peak	I <sub>FSM</sub>	60Hz half sin wave, Non-repetitive one cycle peak value, T <sub>j</sub> =25°C	100	A
Junction temperature	T <sub>j</sub>		150	°C
Storage temperature	T <sub>stg</sub>		-55 to +150	°C

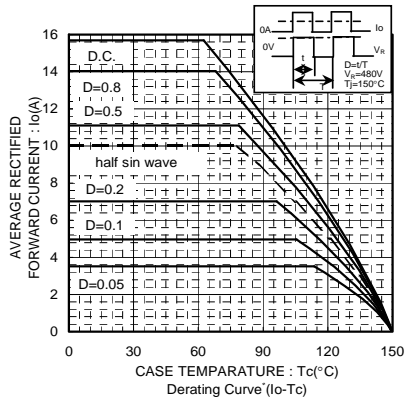
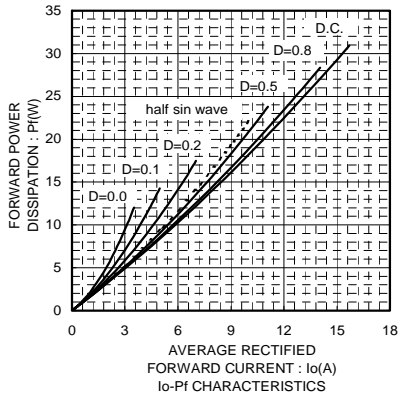
●Electrical characteristics (T<sub>j</sub>=25°C)

Parameter	Symbol	Conditions	Min.	Typ.	Max.	Unit
Forward voltage	V <sub>F</sub>	I <sub>F</sub> =10A	-	1.4	1.7	V
Reverse current	I <sub>R</sub>	V <sub>R</sub> =600V	-	0.05	10	μA
Reverse recovery time(*)	trr	I <sub>F</sub> =0.5A, I <sub>R</sub> =1A, I <sub>rr</sub> =0.25×I <sub>R</sub>	-	30	40	ns
Thermal resistance(*)	R <sub>th(j-c)</sub>	junction to case	-	-	3.5	°C/W

(\*) : Design assurance without measurement.

●Electrical characteristics curves





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