

Fast recovery diode

RF601T2D

●Applications

General rectification

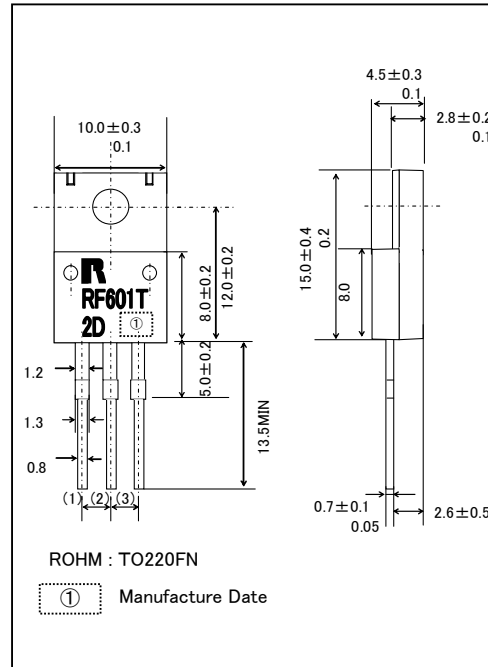
●Features

- 1) Cathode common type.(TO-220)
- 2) Ultra Low V_F
- 3) Very fast recovery
- 4) Low switching loss

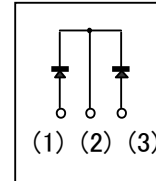
●Construction

Silicon epitaxial planar

●Dimensions (Unit : mm)



●Structure



●Absolute maximum ratings (Ta=25°C)

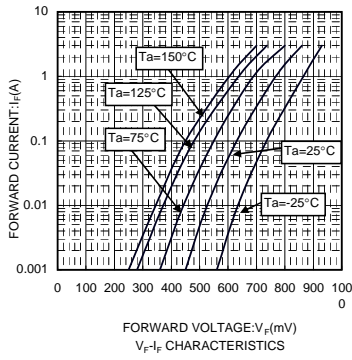
Parameter	Symbol	Limits	Unit
Reverse voltage (repetitive peak)	V_{RM}	200	V
Reverse voltage (DC)	V_R	200	V
Average rectified forward current (*1)	I_o	6	A
Forward current surge peak (60Hz/1cyc)	I_{FSM}	60	A
Junction temperature	T_j	150	°C
Storage temperature	T_{stg}	-55 to +150	°C

(*1)Business frequency, Rating of R-load, $T_c=132^{\circ}C_{MAX}$. 1/2 I_o per diode

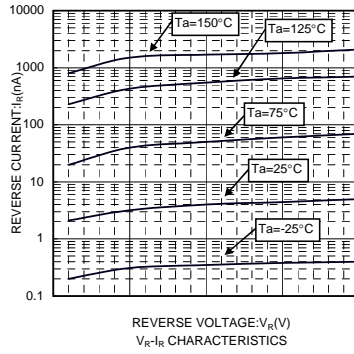
●Electrical characteristic (Ta=25°C)

Parameter	Symbol	Min.	Typ.	Max.	Unit	Conditions
Forward voltage	V_F	-	0.87	0.93	V	$I_F=3A$
Reverse current	I_R	-	0.01	10	μA	$V_R=200V$
Reverse recovery time	t_{rr}	-	18	25	ns	$I_F=0.5A, I_R=1A, I_{rr}=0.25*I_R$

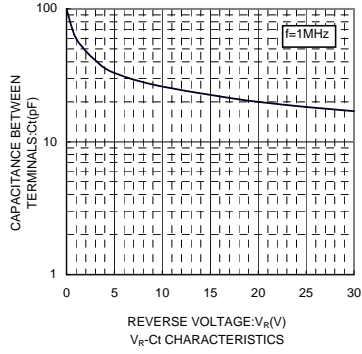
●Electrical characteristics curves



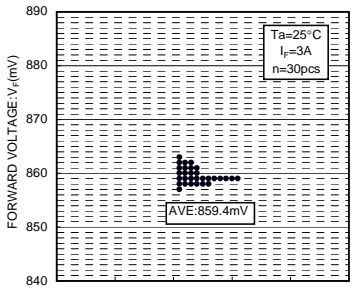
FORWARD VOLTAGE: V_F (mV)
 V_F - I_F CHARACTERISTICS



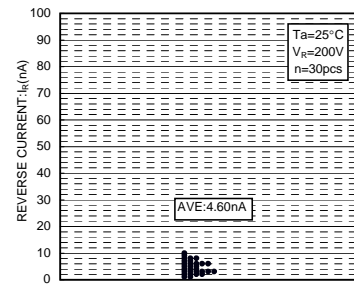
REVERSE VOLTAGE: V_R (V)
 V_R - I_R CHARACTERISTICS



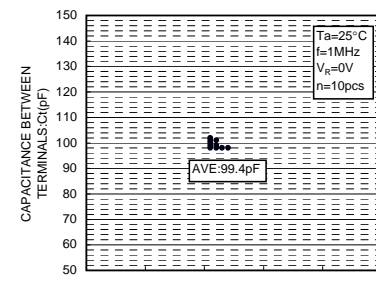
REVERSE VOLTAGE: V_R (V)
 V_R - C_i CHARACTERISTICS



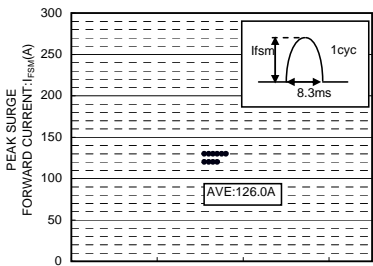
V_F DISPERSION MAP



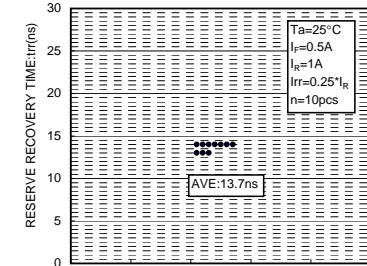
I_R DISPERSION MAP



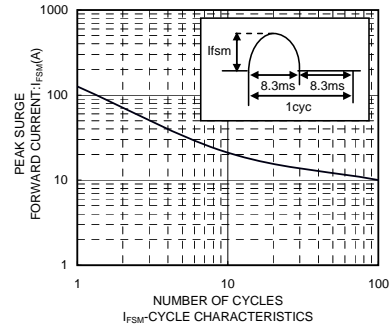
C_i DISPERSION MAP



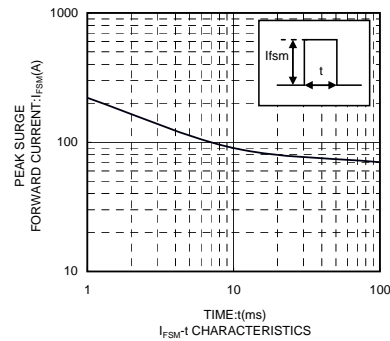
I_{FSM} DISPERSION MAP



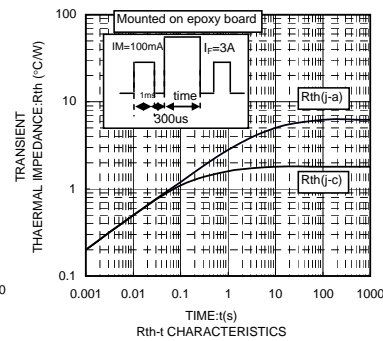
t_{rr} DISPERSION MAP



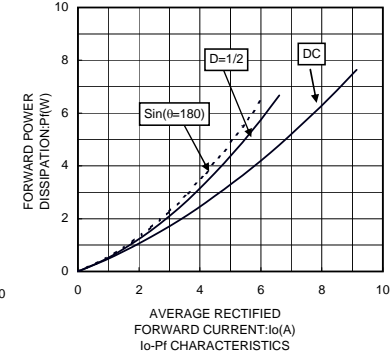
I_{FSM} -CYCLE CHARACTERISTICS



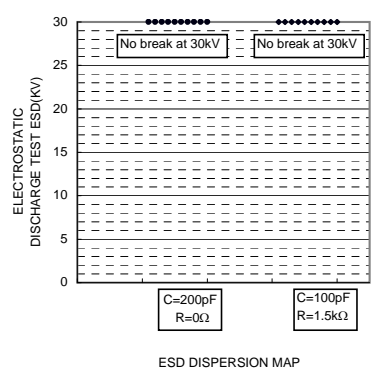
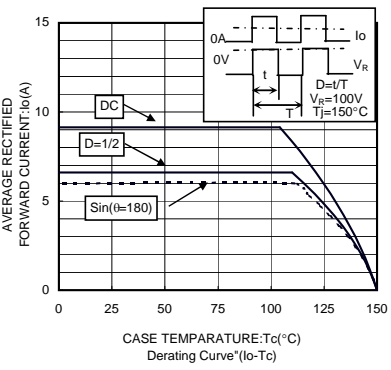
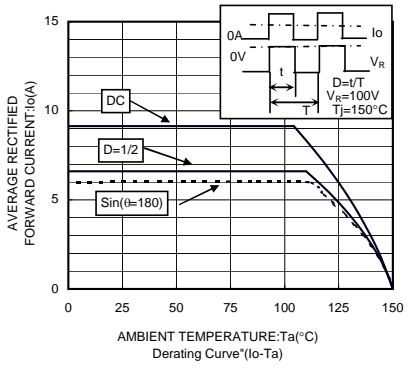
I_{FSM} - t CHARACTERISTICS



R_{th} - t CHARACTERISTICS



I_o - P CHARACTERISTICS



Notes

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