Fast recovery diodes

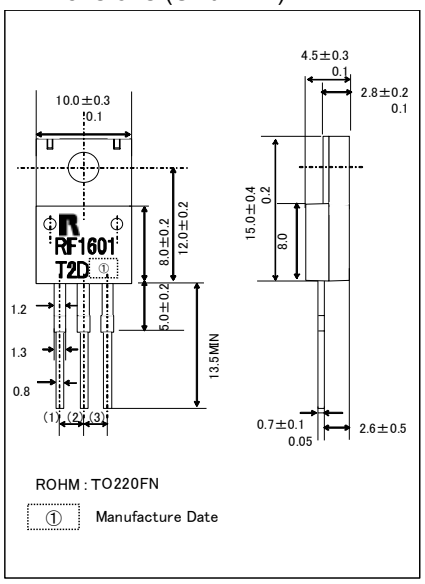
RF1601T2D

●Applications
General rectification

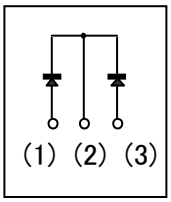
●Features
1) Cathode common type.
(TO-220)
2) Ultra Low V_F
3) Very fast recovery
4) Low switching loss

●Construction
Silicon epitaxial planar

●Dimensions (Unit : mm)



●Structure



●Absoslute maximum ratings (Ta=25°C)

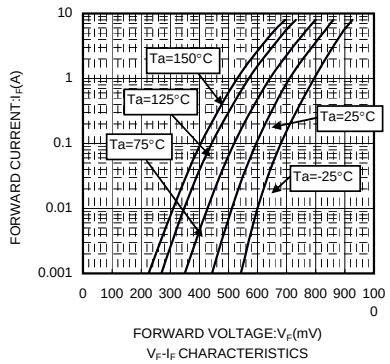
Parameter	Symbol	Limits	Unit
Reverse voltage (repetitive peak)	V_{RM}	200	V
Reverse voltage (DC)	V_R	200	V
Average rectified forward current (*1)	Io	16	A
Forward current surge peak (60Hz/1cyc)	I_{FSM}	80	A
Junction temperature	Tj	150	°C
Storage temoerature	Tstg	-55 to +150	°C

(*1)Business frequency, Rating of R-load, Tc=120°C. 1/2 Io per diode

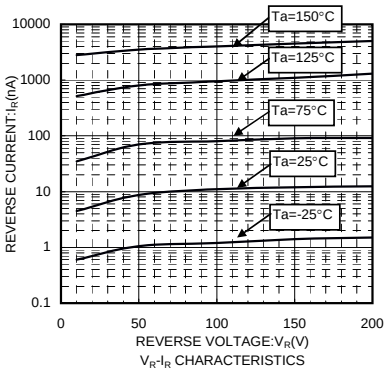
●Electrical characteristic (Ta=25°C)

Parameter	Symbol	Min.	Typ.	Max.	Unit	Conditions
Forward voltage	V_F	-	-	0.93	V	I_F=8A
Reverse current	I_R	-	-	10	μA	V_R=200V
Reverse recovery time	trr	-	-	30	ns	I_F=0.5A,I_R=1A,Irr=0.25*I_R

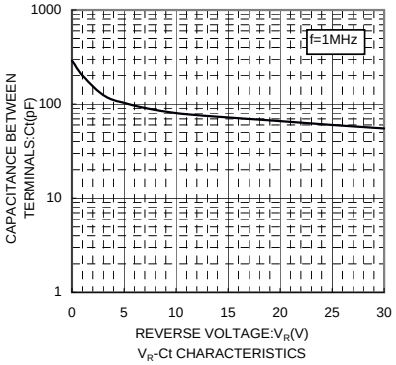
●**Electrical characteristics curves**



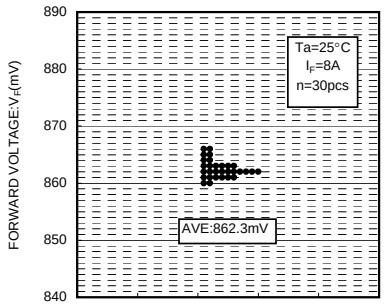
V_F-I_F CHARACTERISTICS



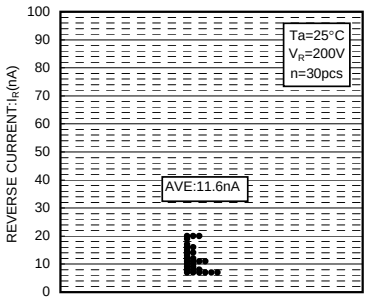
V_R-I_R CHARACTERISTICS



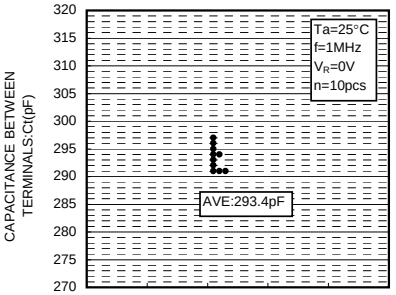
V_R-Ct CHARACTERISTICS



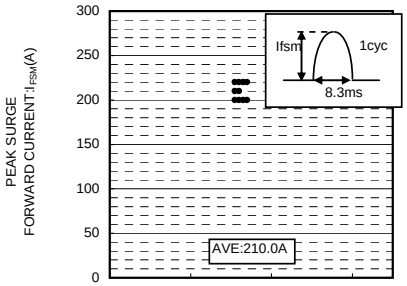
V_F DISPERSION MAP



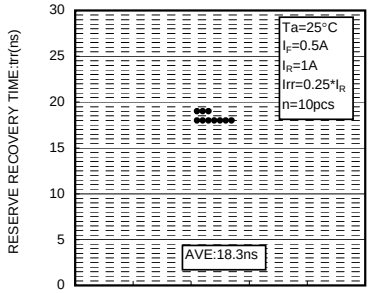
I_R DISPERSION MAP



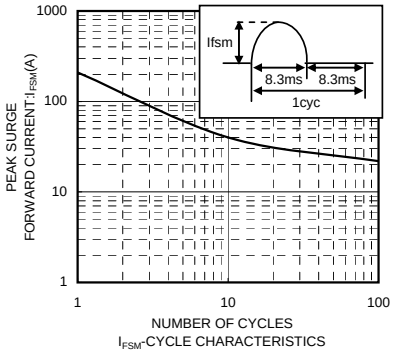
Ct DISPERSION MAP



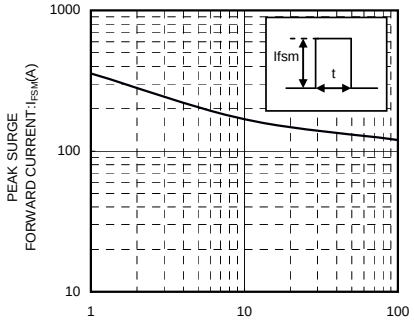
I_{FSM} DISPERSION MAP



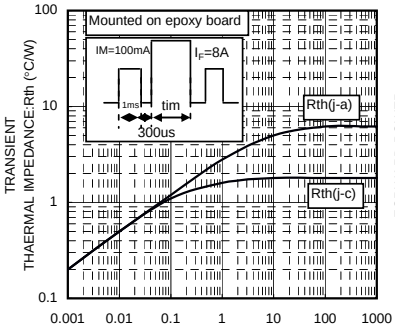
trr DISPERSION MAP



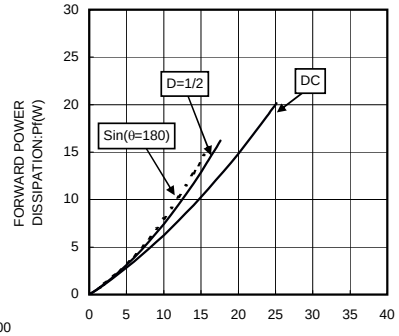
I_{FSM}-CYCLE CHARACTERISTICS



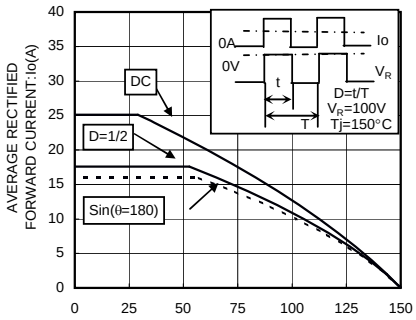
I_{FSM}-t CHARACTERISTICS



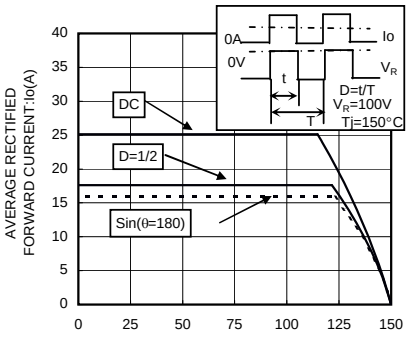
Rth-t CHARACTERISTICS



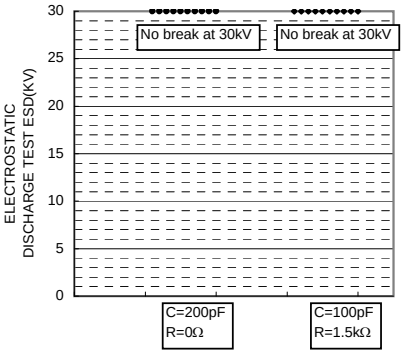
Io-Pf CHARACTERISTICS



AMBIENT TEMPERATURE:Ta(°C)
Derating Curve"(Io-Ta)



CASE TEMPARATURE:Tc(°C)
Derating Curve"(Io-Tc)



ESD DISPERSION MAP

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