Fast recovery diode

RF2001T2D

●**Applications**

General rectification

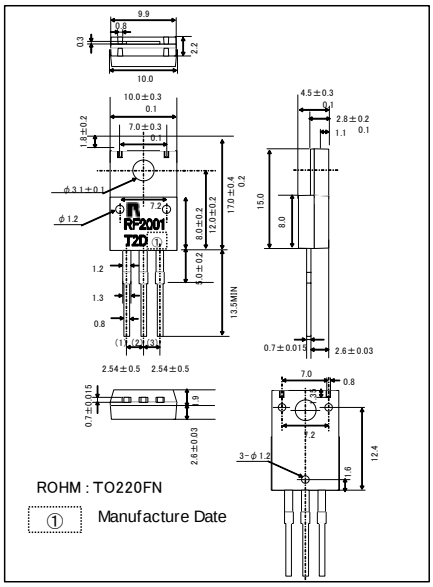
●**Features**

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

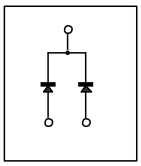
●**Construction**

Silicon epitaxial planar

●**External dimensions** (Unit : mm)



●**Structure**



●**Absolute maximum ratings** (Ta=25°C)

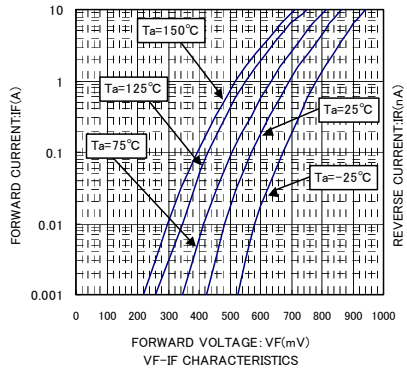
Parameter	Symbol	Limits	Unit
Reverse voltage (repetitive peak)	V_{RM}	200	V
Reverse voltage (DC)	V_R	200	V
Average rectified forward current (*1)	Io	20	A
Forward current surge peak (60Hz・1cyc)	I_{FSM}	100	A
Junction temperature	Tj	150	℃
Storage temperature	Tstg	-55 to +150	℃

(*1) Per chip : Io/2

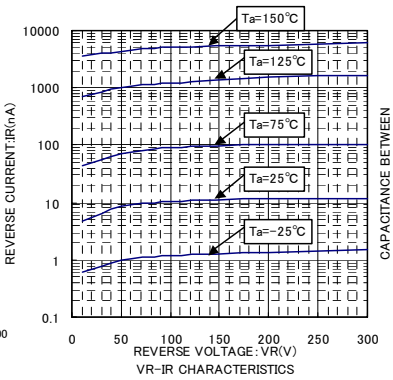
●**Electrical characteristic** (Ta=25°C)

Parameter	Symbol	Min.	Typ.	Max.	Unit	Conditions
Forward voltage	V_F	-	-	0.93	V	I_F=10A
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

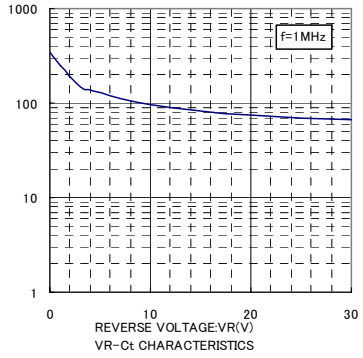
●Electrical characteristic curves



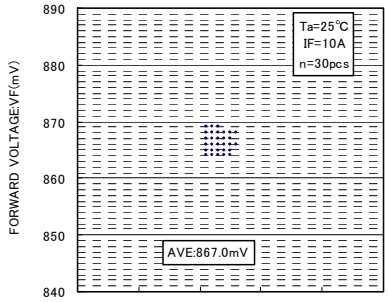
VF-IF CHARACTERISTICS



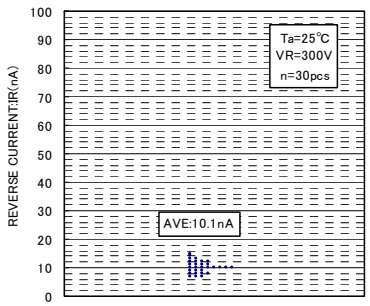
VR-IR CHARACTERISTICS



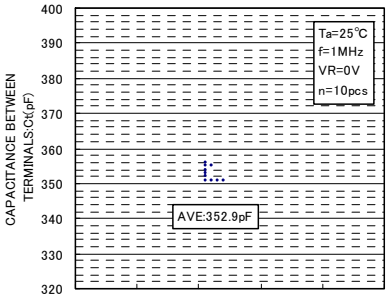
VR-Ct CHARACTERISTICS



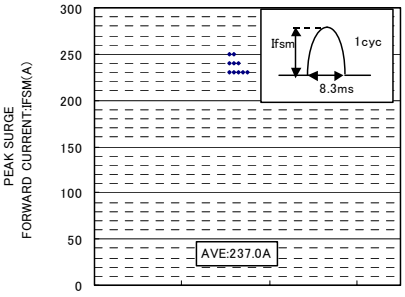
VF DISPERSION MAP



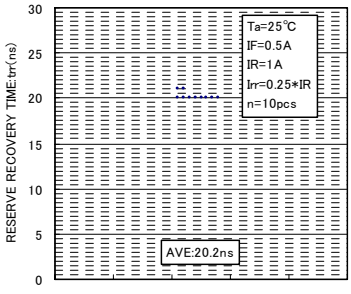
IR DISPERSION MAP



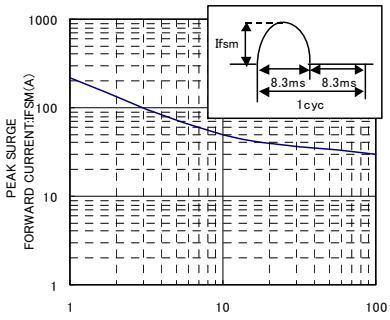
Ct DISPERSION MAP



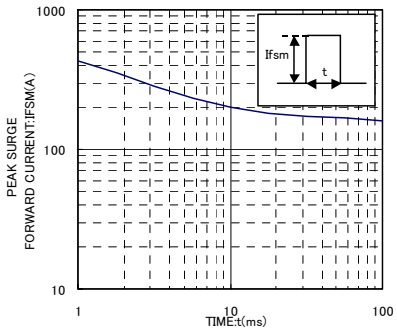
IFSM DISRESION MAP



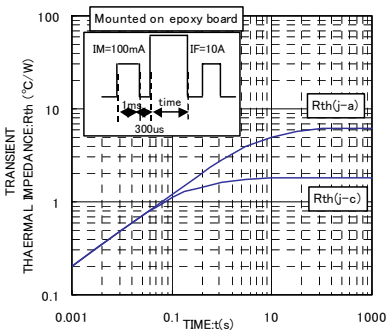
trr DISPERSION MAP



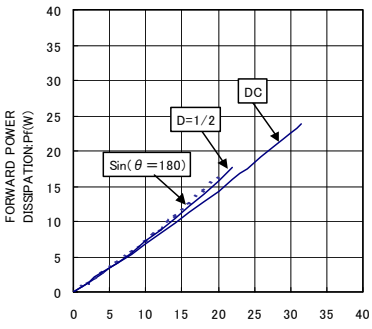
NUMBER OF CYCLES
IFSM-CYCLE CHARACTERISTICS



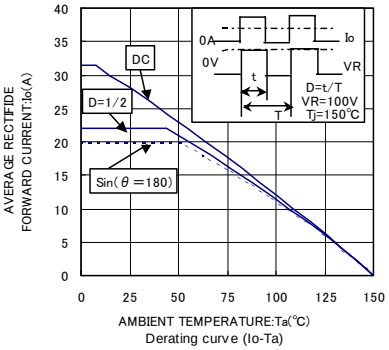
IFSM-t CHARACTERISTICS



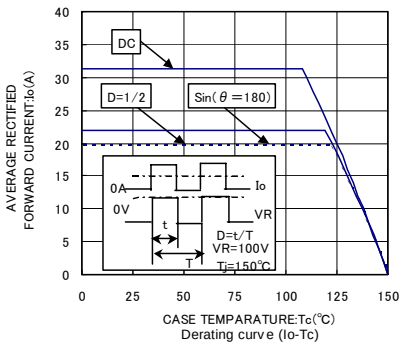
Rth-t CHARACTERISTICS



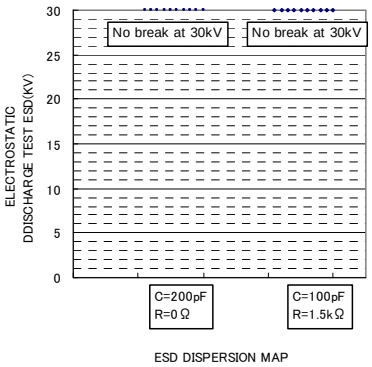
Io-Pf CHARACTERISTICS



Derating curve (Io-Ta)



Derating curve (Io-Tc)



ESD DISPERSION MAP

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