Schottky barrier diode

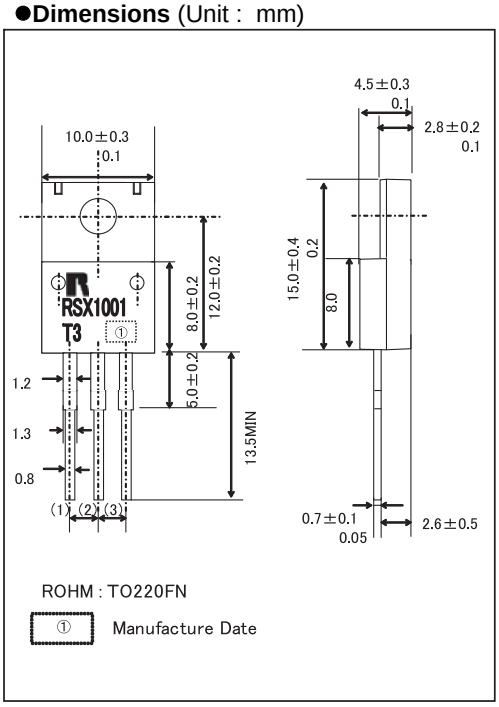
RSX1001T3

●Applications
Switching power supply

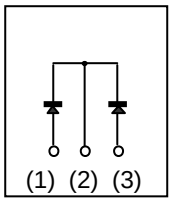
●Features
1) Cathode common type.
(TO-220)
2) Low I_R
3) High reliability

●Construction
Silicon epitaxial planer

●Dimensions (Unit : mm)



●Structure



●Absolute maximum ratings (Ta=25°C)

Parameter	Symbol	Limits	Unit
Reverse voltage (repetitive peak)	V_{RM}	30	V
Reverse voltage (DC)	V_R	30	V
Average rectified forward current (*1)	Io	10	A
Forward current surge peak (60Hz / 1cyc) (*1)	I_{FSM}	150	A
Junction temperature	Tj	150	°C
Storage temperature	Tstg	-40 to +150	°C

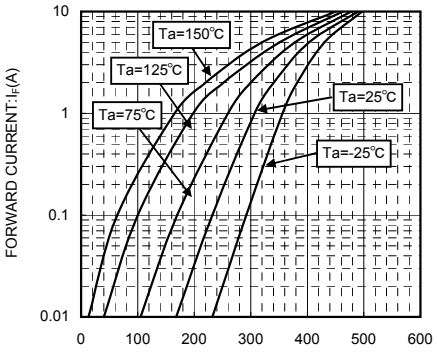
(*1)Business frequencies, Rating of R-load, 1/2 Io per diode, Tc=132°C

●Electrical characteristic (Ta=25°C)

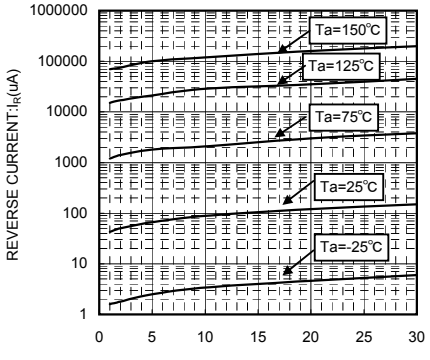
Parameter	Symbol	Min.	Typ.	Max.	Unit	Conditions
Forward voltage	V_F	-	-	0.45	V	I_F=5A
Reverse current	I_R	-	-	500	μA	V_R=30
Reverse recovery time	θjc	-	-	2.5	°C/W	junction to case

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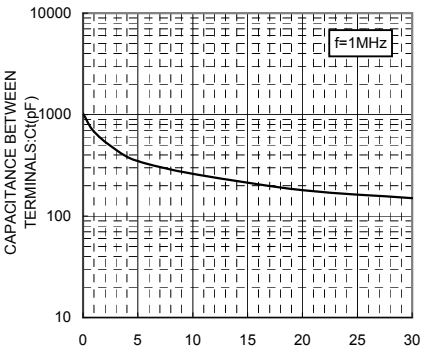
●Electrical characteristic curves



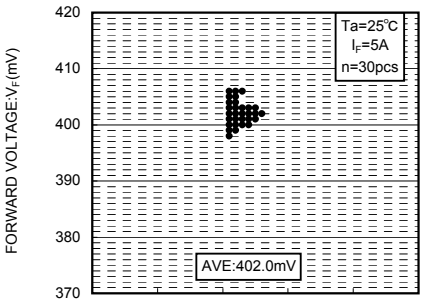
V$_F$-I$_F$ CHARACTERISTICS



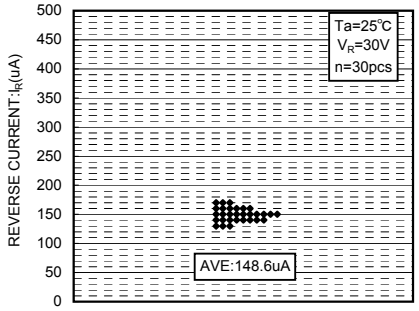
V$_R$-I$_R$ CHARACTERISTICS



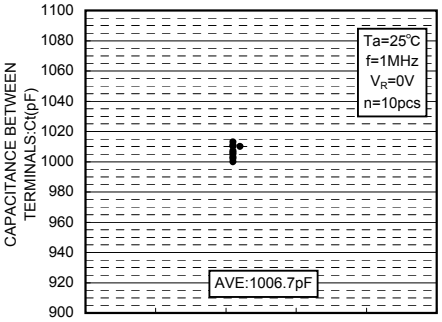
V$_R$-Ct CHARACTERISTICS



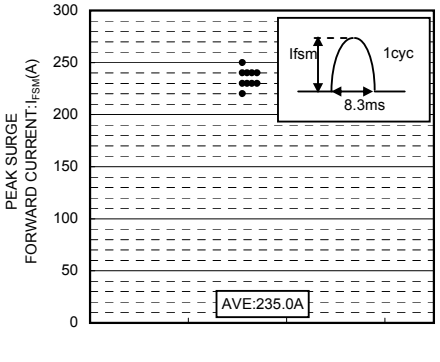
V$_F$ DISPERSION MAP



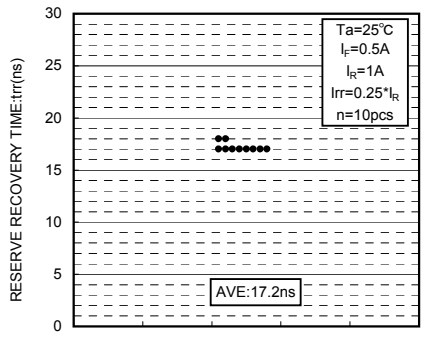
I$_R$ DISPERSION MAP



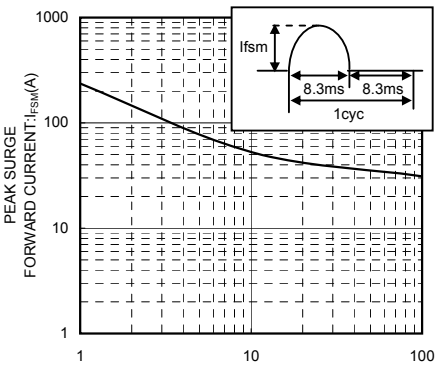
Ct DISPERSION MAP



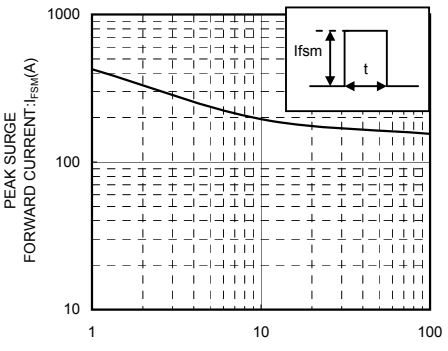
I$_{FSM}$ DISPERSION MAP



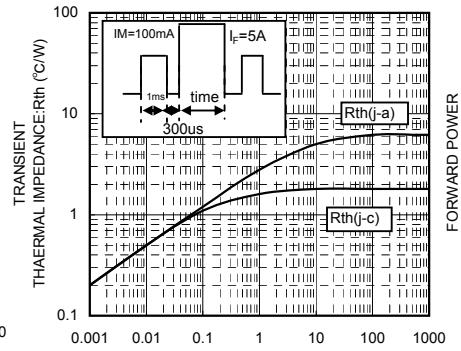
trr DISPERSION MAP



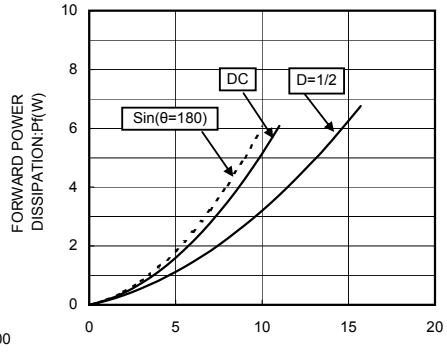
I$_{FSM}$-CYCLE CHARACTERISTICS



I$_{FSM}$-t CHARACTERISTICS

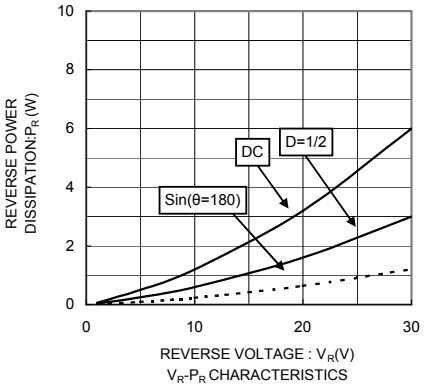


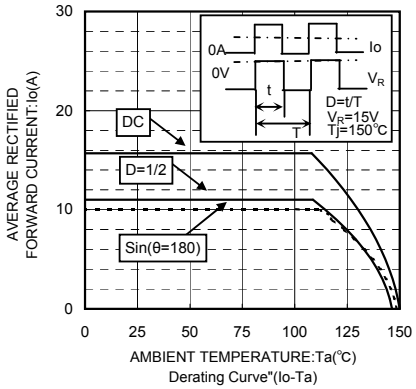
Rth-t CHARACTERISTICS

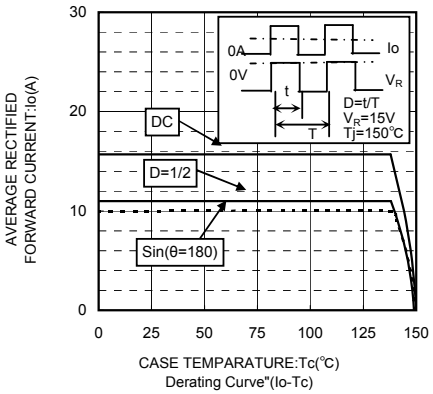


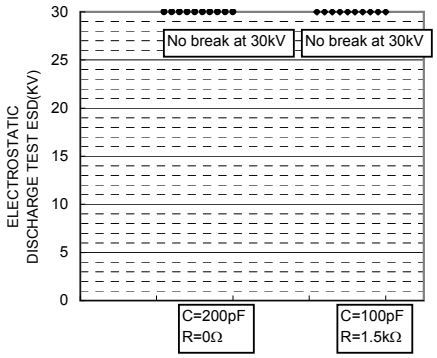
Io-Pf CHARACTERISTICS

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ESD DISPERSION MAP

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