Schottky barrier diode

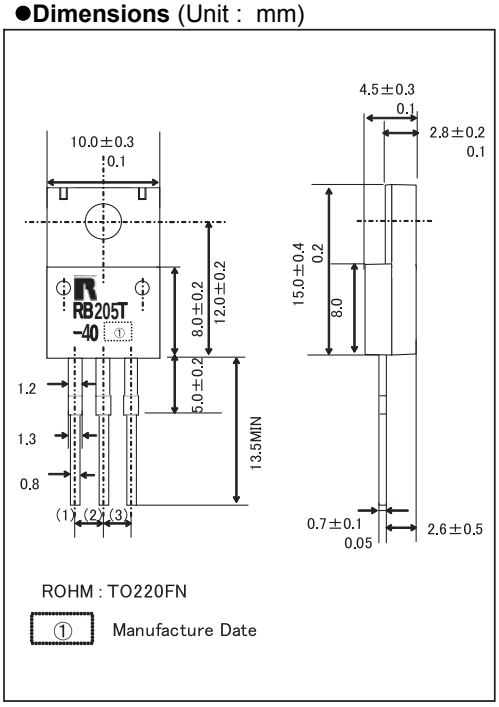
RB205T-40

●Applications
Switching power supply

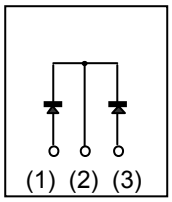
●Features
1) Cathode common type.
(TO-220)
2) Low I_R
3) High reliability

●Construction
Silicon epitaxial planer

●Dimensions (Unit : mm)



●Structure



●Absolute maximum ratings (Ta=25°C)

Parameter	Symbol	Limits	Unit
Reverse voltage (repetitive peak)	V_{RM}	45	V
Reverse voltage (DC)	V_R	40	V
Average rectified forward current (*1)	Io	15	A
Forward current surge peak (60Hz / 1cyc) (*1)	I_{FSM}	100	A
Junction temperature	Tj	150	°C
Storage temperature	Tstg	-40 to +150	°C

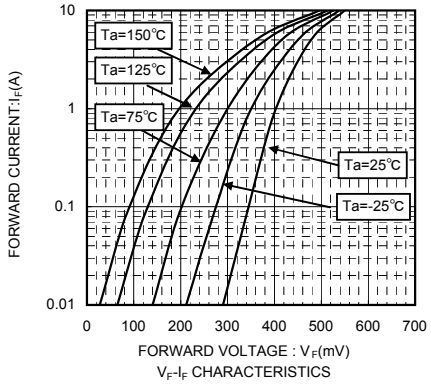
(*1)Business frequencies, Rating of R-load, 1/2 Io per diode, Tc=125°C

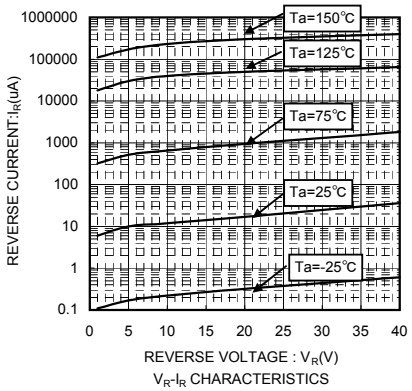
●Electrical characteristic (Ta=25°C)

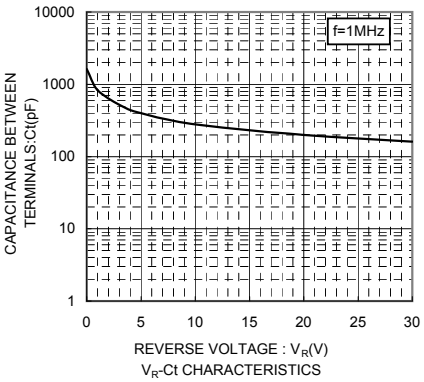
Parameter	Symbol	Min.	Typ.	Max.	Unit	Conditions
Forward voltage	V_F	-	-	0.55	V	I_F=7.5A
Reverse current	I_R	-	-	300	μA	V_R=40V
Thermal impedance	θjc	-	-	2	°C/W	junction to case

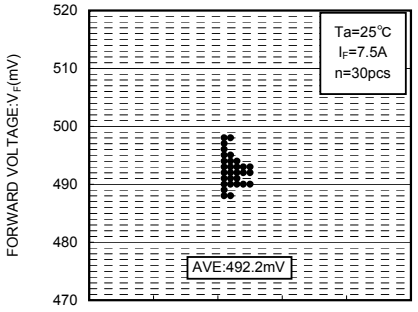
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●Electrical characteristic curves

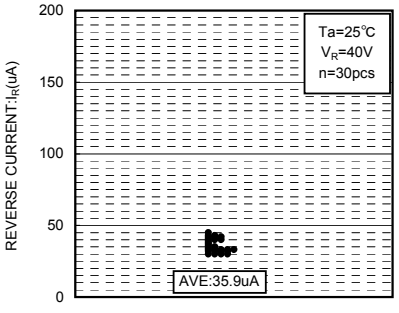




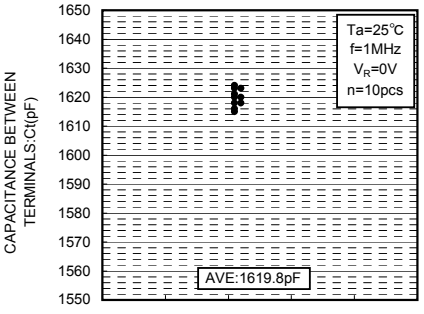




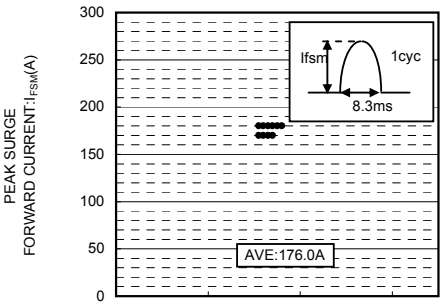
V_F DISPERSION MAP



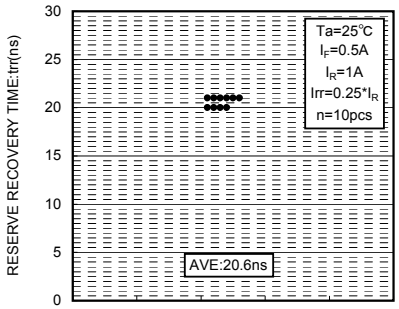
I_R DISPERSION MAP



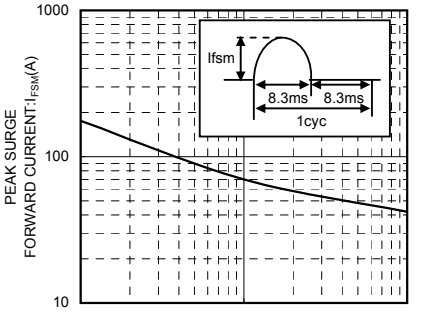
Ct DISPERSION MAP

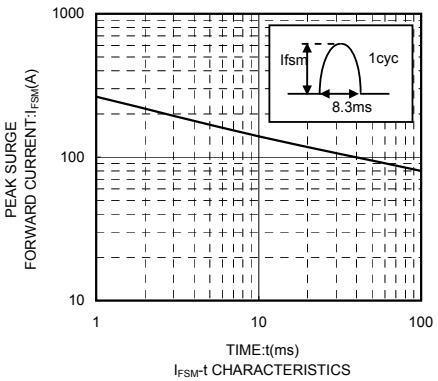


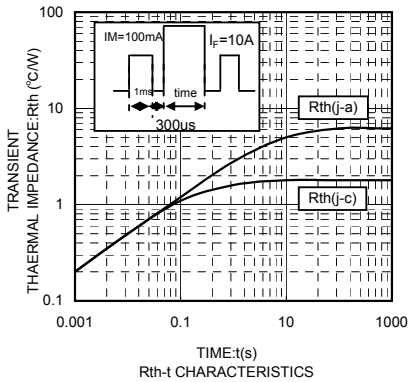
I_{FSM} DISPERSION MAP

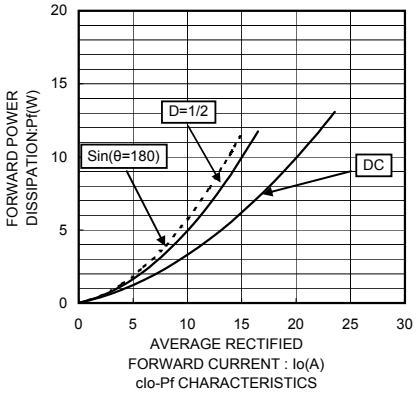


trr DISPERSION MAP

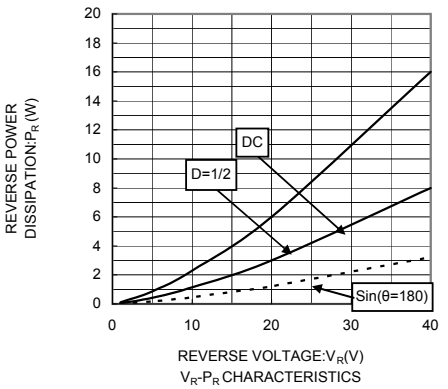




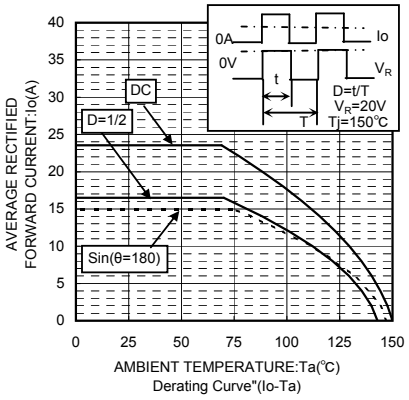




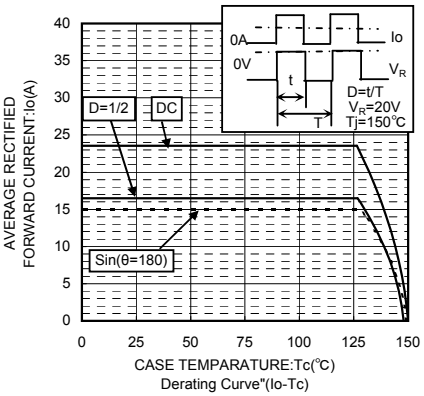
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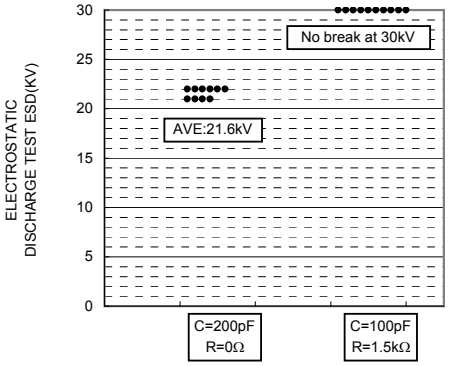
V_R-P_R CHARACTERISTICS



Derating Curve"(Io-Ta)



Derating Curve"(Io-Tc)



ESD DISPERSION MAP

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