

Schottky Barrier Diode

RBQ10T45A

●Applications

General rectification

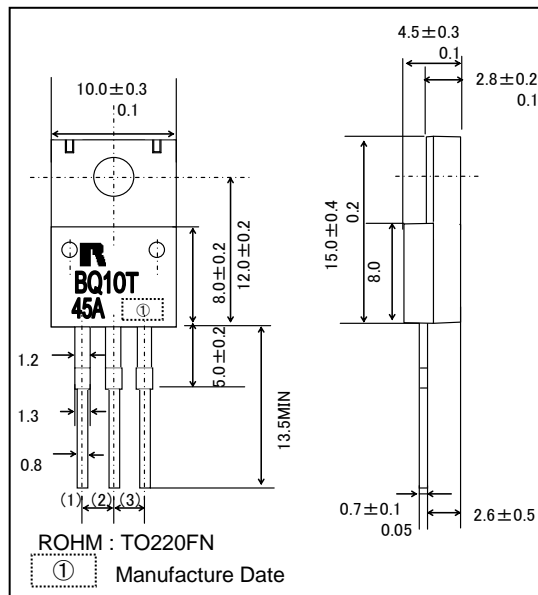
●Features

- 1)Cathode common type.
- 2)Low I_R
- 3)High reliability

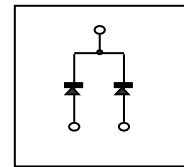
●Construction

Silicon epitaxial planer

●Dimensions (Unit : mm)



●Structure



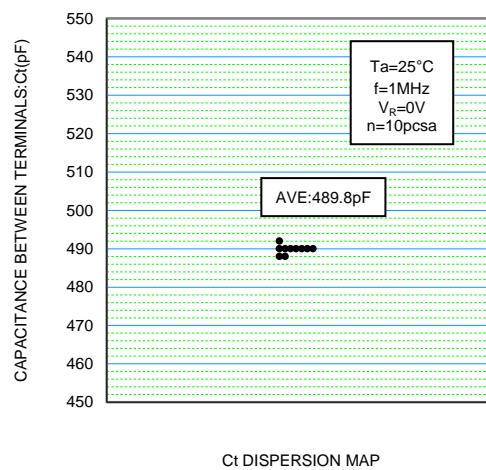
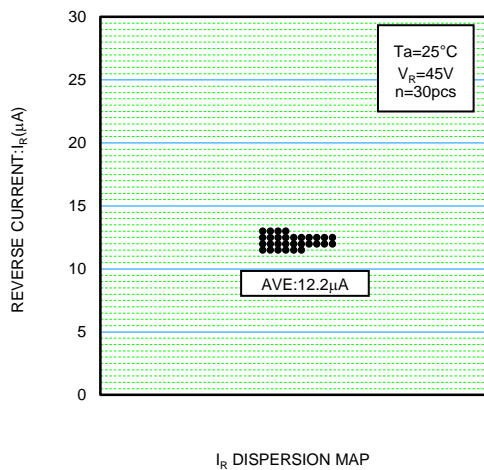
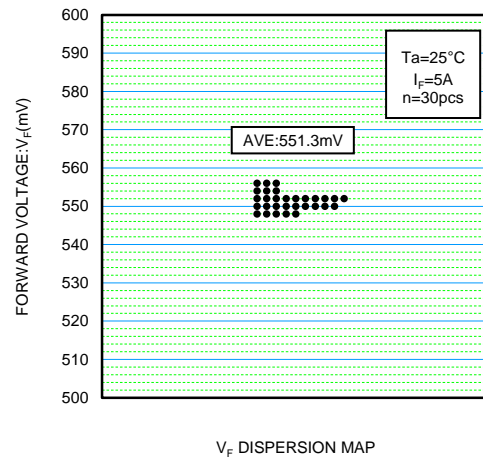
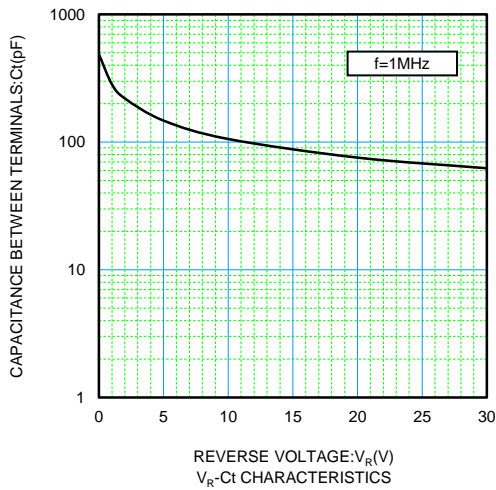
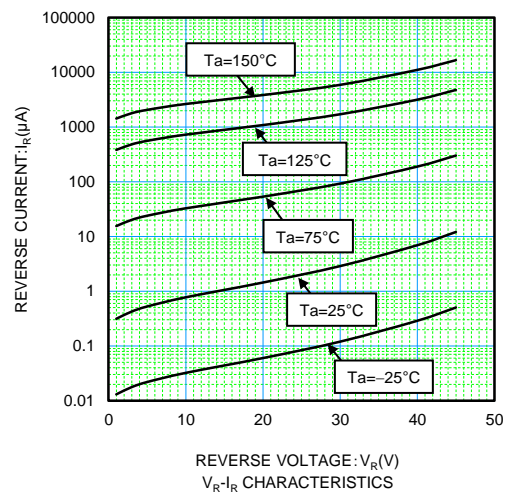
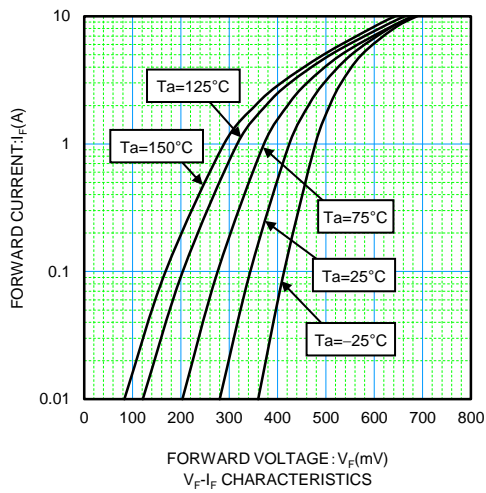
●Absolute maximum ratings ($T_c=25^\circ\text{C}$)

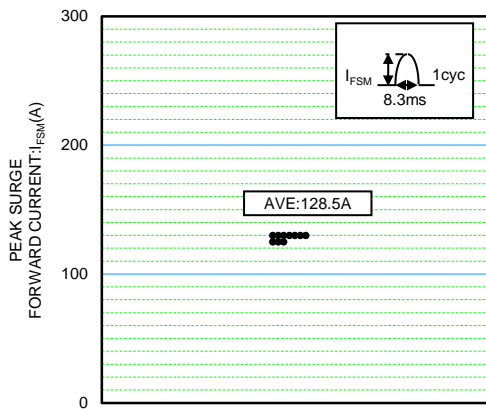
Parameter	Symbol	Limits	Unit
Reverse voltage (repetitive)	V_{RM}	45	V
Reverse voltage (DC)	V_R	45	V
Average rectified forward current (*1)	I_o	10	A
Forward current surge peak (60Hz·1cyc)	I_{FSM}	50	A
Junction temperature	T_j	150	$^\circ\text{C}$
Storage temperature	T_{stg}	-40 to +150	$^\circ\text{C}$

(*1) Rating of per diode : $I_o/2$

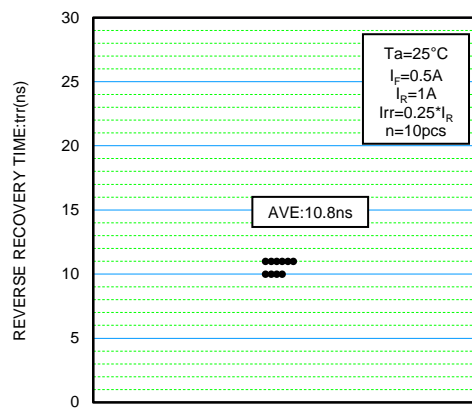
●Electrical characteristics ($T_j=25^\circ\text{C}$)

Parameter	Symbol	Min.	Typ.	Max.	Unit	Conditions
Forward voltage	V_F	-	-	0.65	V	$I_F=5\text{A}$
Reverse current	I_R	-	-	150	μA	$V_R=45\text{V}$

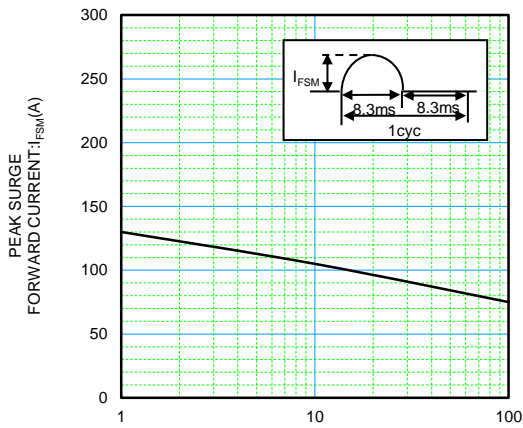




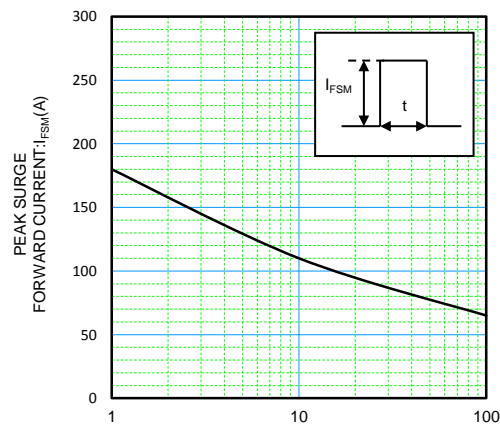
I_{FSM} DISRESION MAP



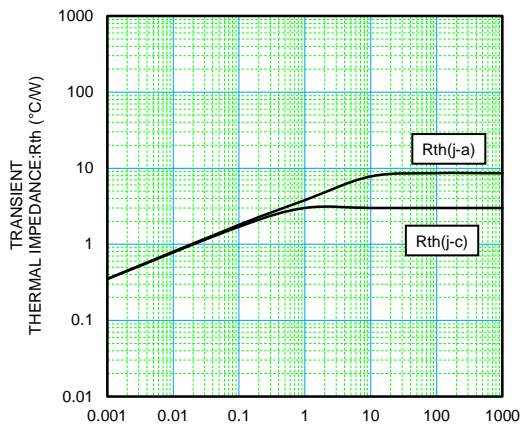
trr DISPERSION MAP



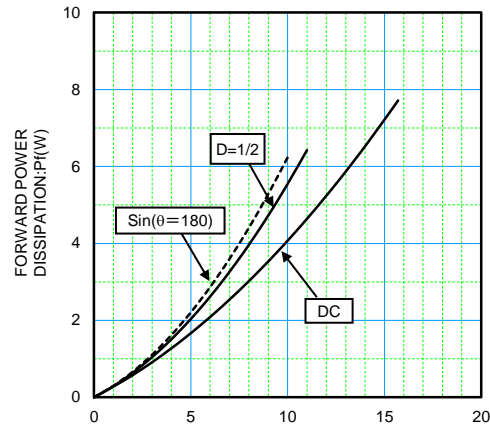
NUMBER OF CYCLES
 I_{FSM} CYCLE CHARACTERISTICS



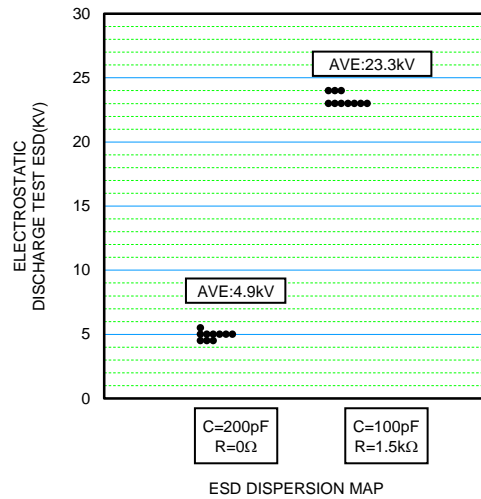
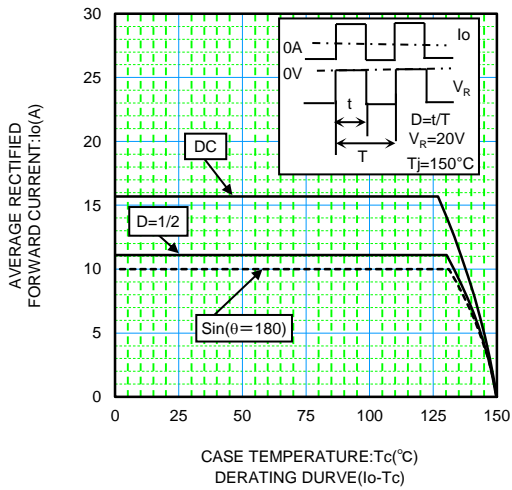
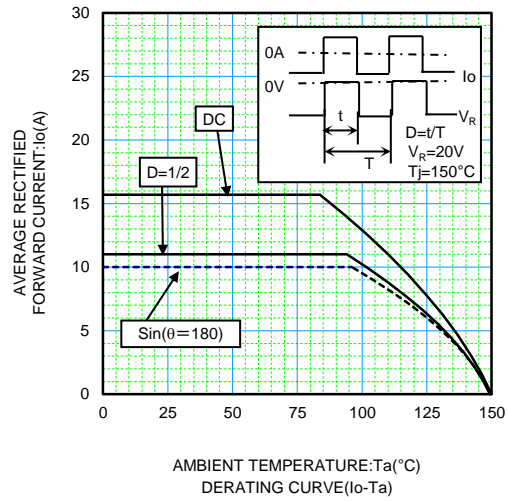
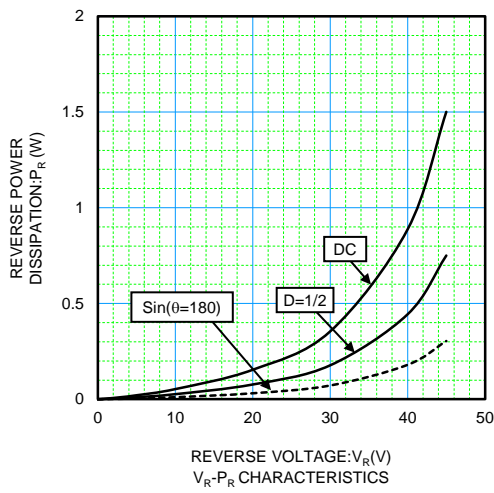
TIME:t(ms)
 I_{FSM} -t CHARACTERISTICS



TIME:t(s)
Rth-t CHARACTERISTICS



AVERAGE RECTIFIED
FORWARD CURRENT : I_o (A)
 I_o -P_f CHARACTERISTICS



Notes

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