

# Schottky Barrier Diode

## RBQ10T45A

●Applications

General rectification

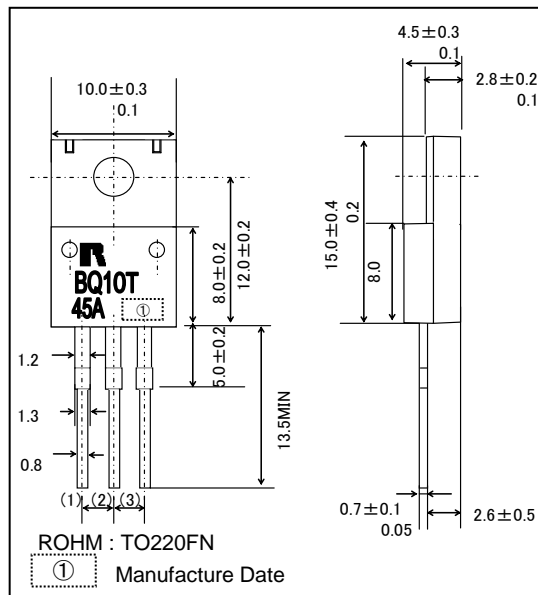
●Features

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

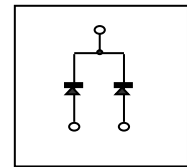
●Construction

Silicon epitaxial planer

●Dimensions (Unit : mm)



●Structure



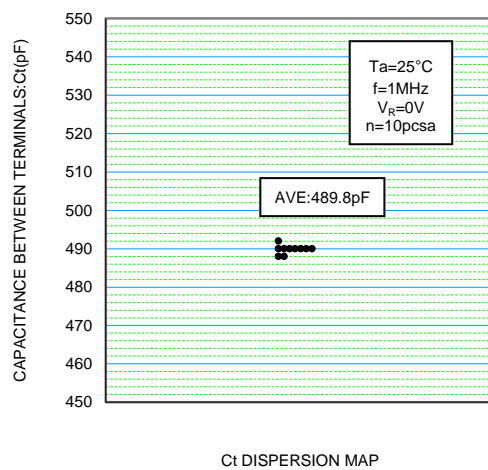
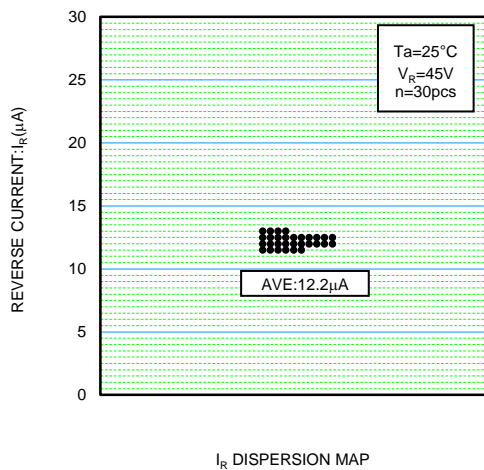
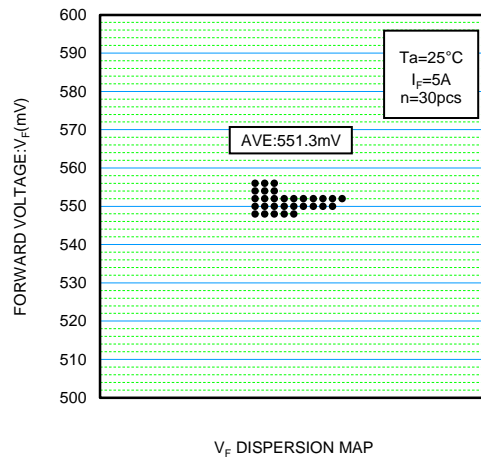
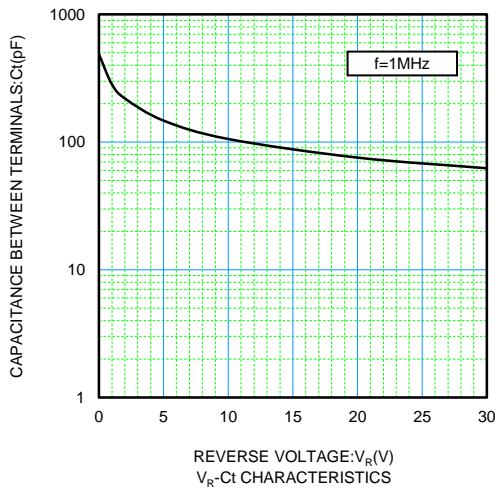
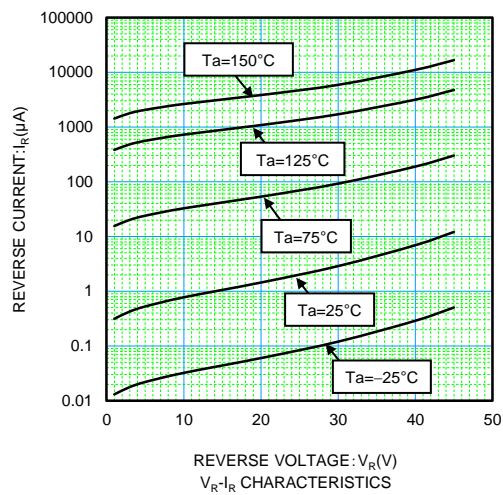
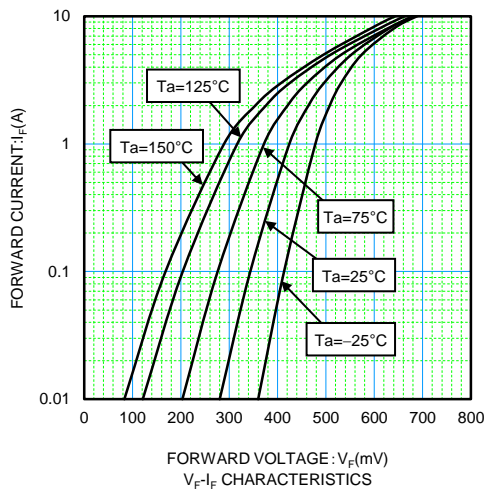
●Absolute maximum ratings ( $T_c=25^\circ\text{C}$ )

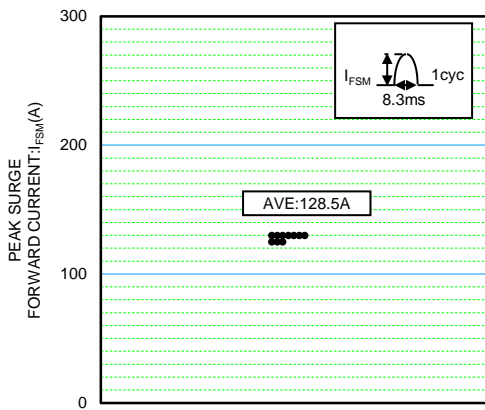
Parameter	Symbol	Limits	Unit
Reverse voltage (repetitive)	$V_{RM}$	45	V
Reverse voltage (DC)	$V_R$	45	V
Average rectified forward current (*1)	$I_o$	10	A
Forward current surge peak (60Hz·1cyc)	$I_{FSM}$	50	A
Junction temperature	$T_j$	150	$^\circ\text{C}$
Storage temperature	$T_{stg}$	-40 to +150	$^\circ\text{C}$

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

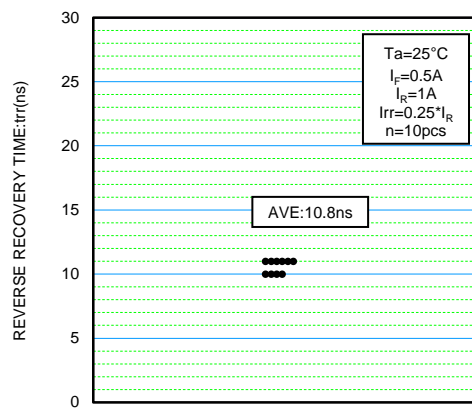
●Electrical characteristics ( $T_j=25^\circ\text{C}$ )

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

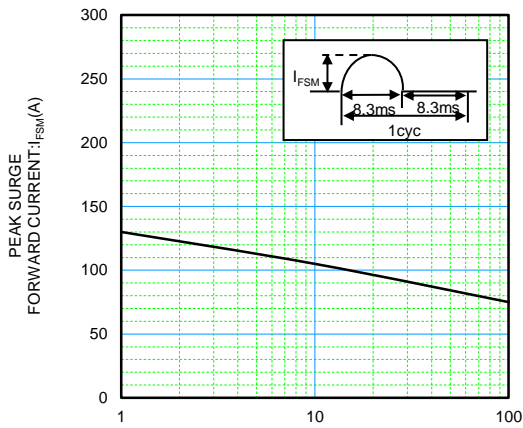




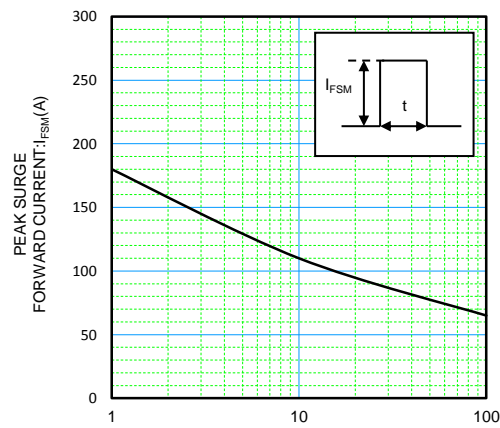
$I_{FSM}$  DISRESION MAP



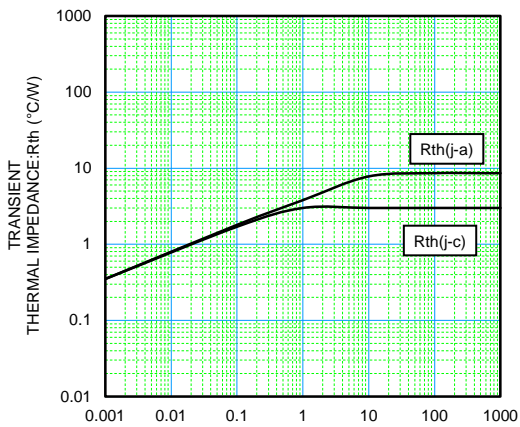
trr DISPERSION MAP



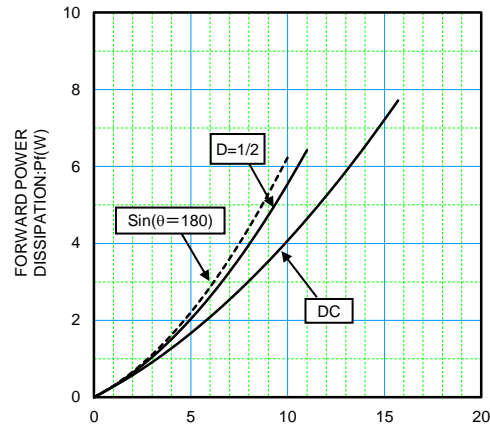
NUMBER OF CYCLES  
 $I_{FSM}$  CYCLE CHARACTERISTICS



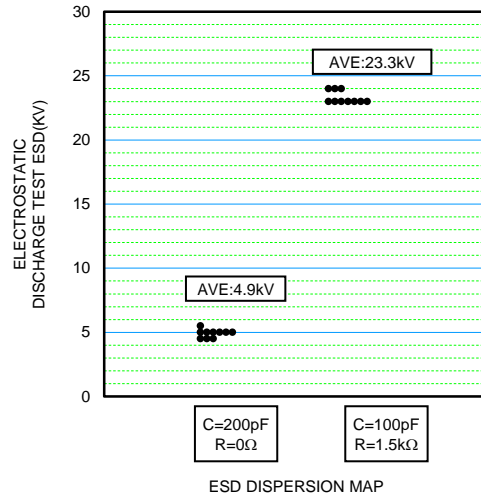
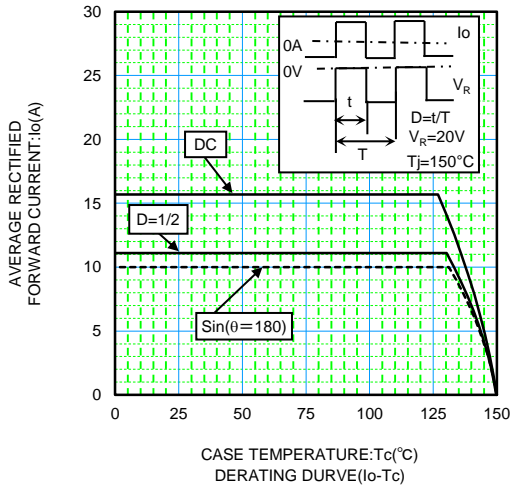
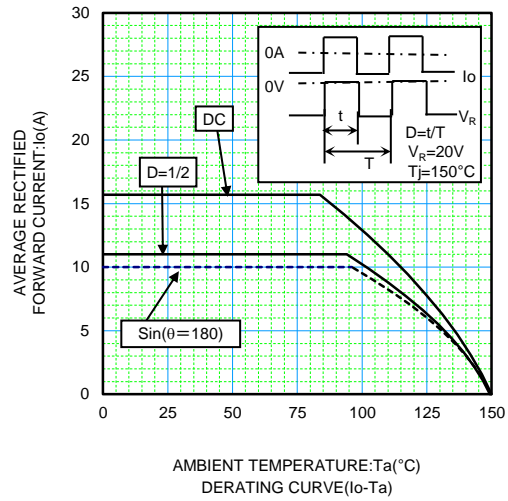
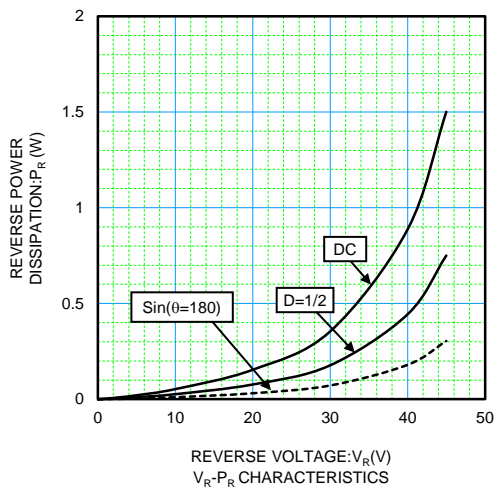
TIME:t(ms)  
 $I_{FSM}$ -t CHARACTERISTICS



TIME:t(s)  
Rth-t CHARACTERISTICS



AVERAGE RECTIFIED  
FORWARD CURRENT :  $I_o$ (A)  
 $I_o$ -P<sub>f</sub> CHARACTERISTICS



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