

Schottky Barrier Diode

RBQ20NS45A

● **Applications**

General rectification

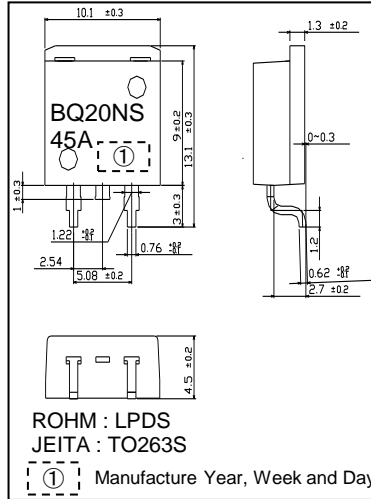
● **Features**

- 1) Cathode Common Dual type. (LPDS)
- 2) Low I_R .

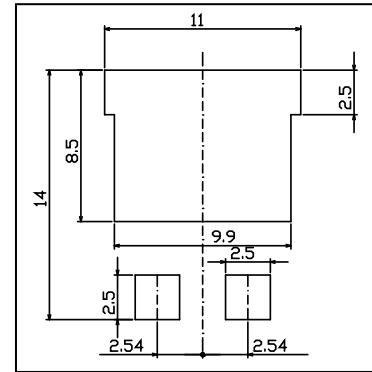
● **Construction**

Silicon epitaxial planer

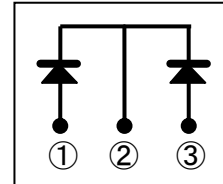
● **Dimensions (Unit : mm)**



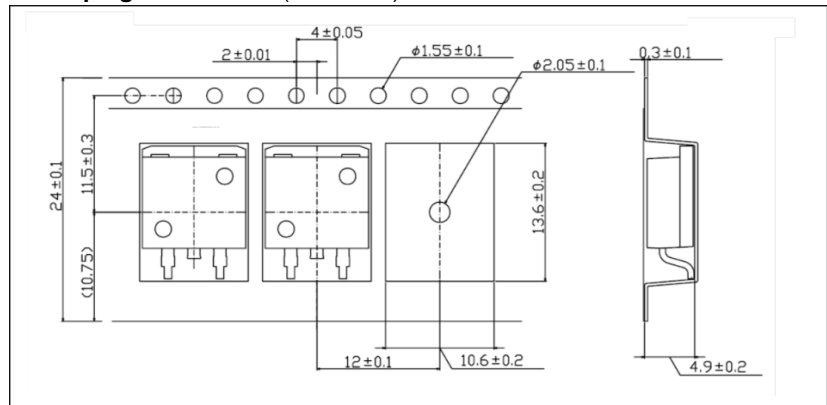
● **Land size figure (Unit : mm)**



● **Structure**



● **Taping dimensions (Unit : mm)**



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

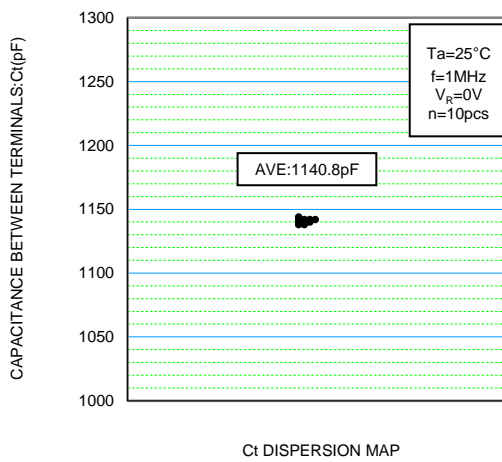
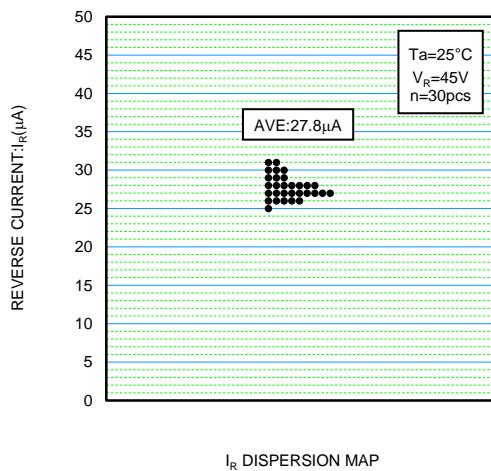
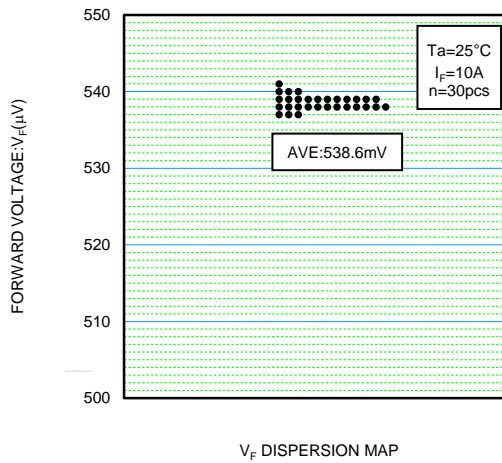
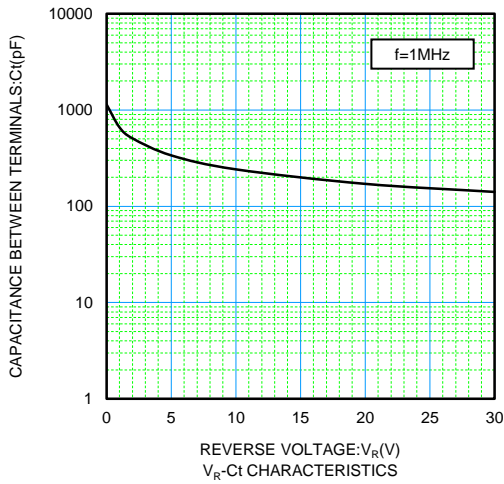
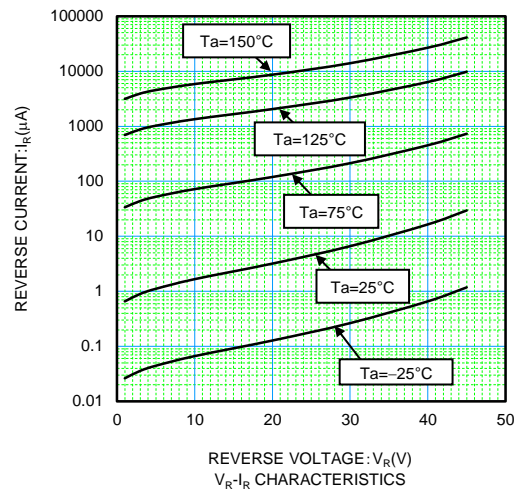
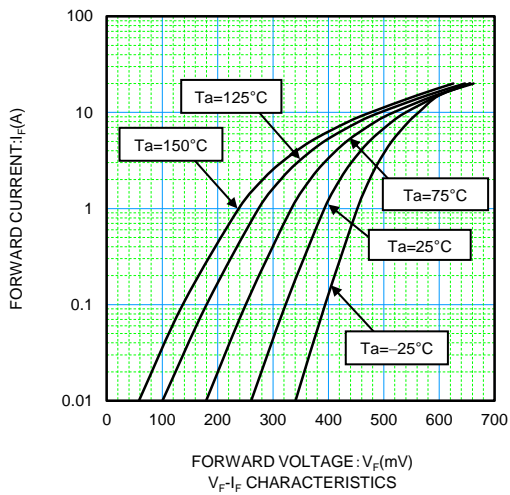
Parameter	Symbol	Limits	Unit
Reverse voltage (repetitive peak)	V_{RM}	45	V
Reverse voltage (DC)	V_R	45	V
Average rectified forward current (*1)	I_o	20	A
Forward current surge peak (60Hz · 1cyc) (*2)	I_{FSM}	100	A
Junction temperature	T_j	150	°C
Storage temperature	T_{stg}	-40 to +150	°C

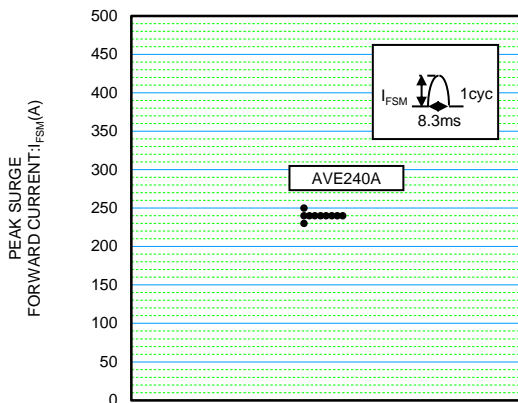
(*1) 60Hz half sin wave, 1/2 I_o per diode.

(*2) 60Hz half sin wave, one cycle, non-repetitive at $T_j=25^\circ\text{C}$.

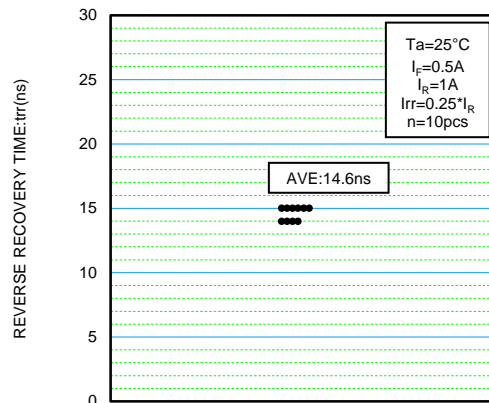
● **Electrical characteristics (T_j=25°C)**

Parameter	Symbol	Min.	Typ.	Max.	Unit	Conditions
Forward voltage	V_F	-	-	0.65	V	$I_F=10A$
Reverse current	I_R	-	-	0.3	mA	$V_R=45V$

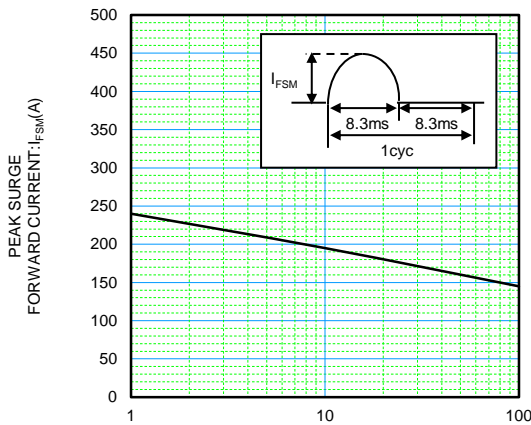




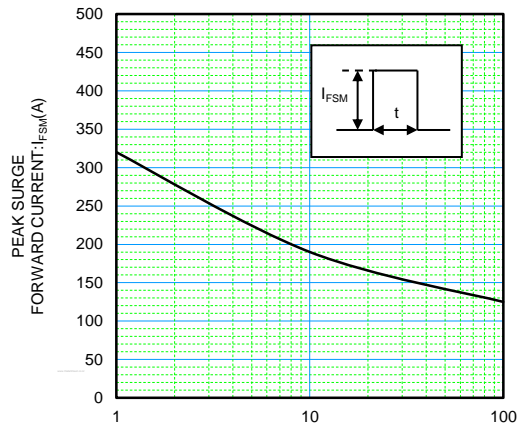
I_{FSM} DISRESION MAP



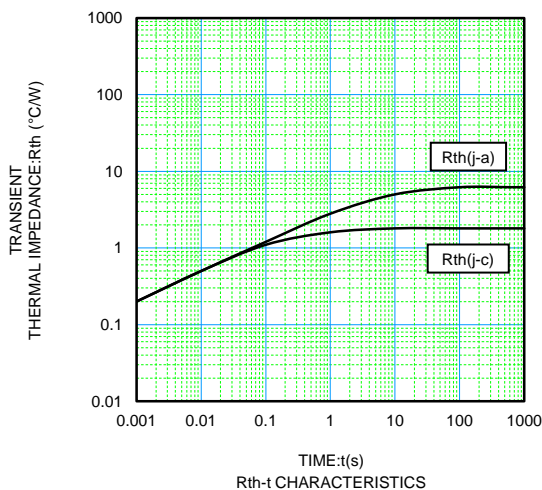
trr DISPERSION MAP



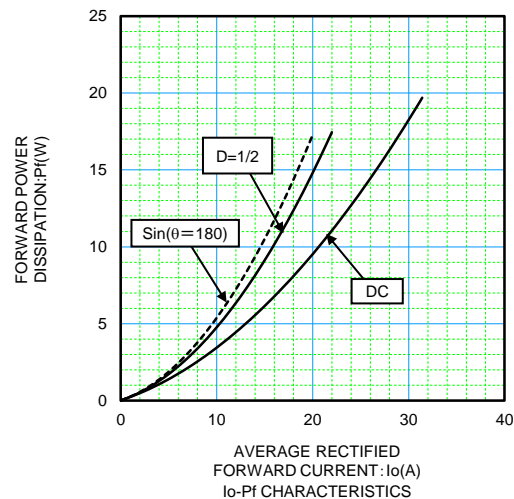
NUMBER OF CYCLES
 I_{FSM} CYCLE CHARACTERISTICS



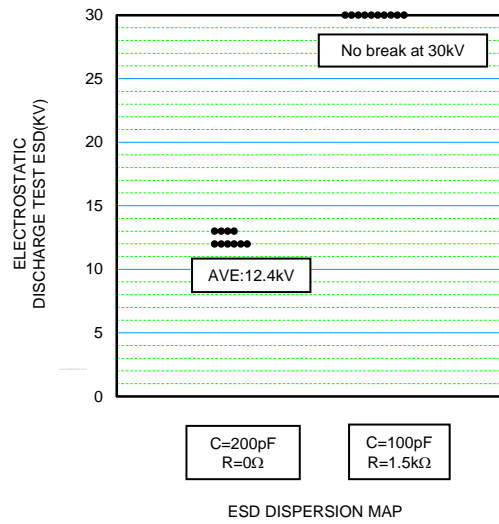
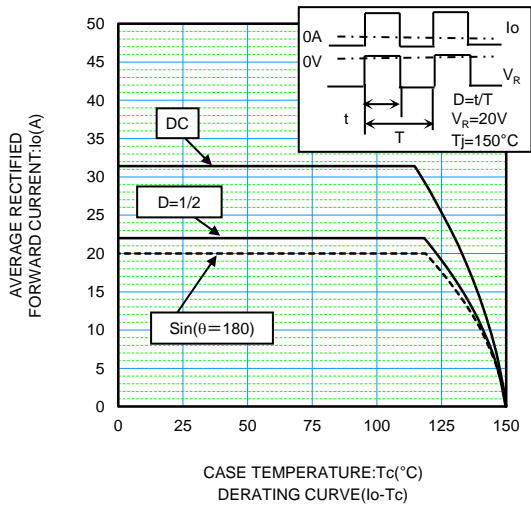
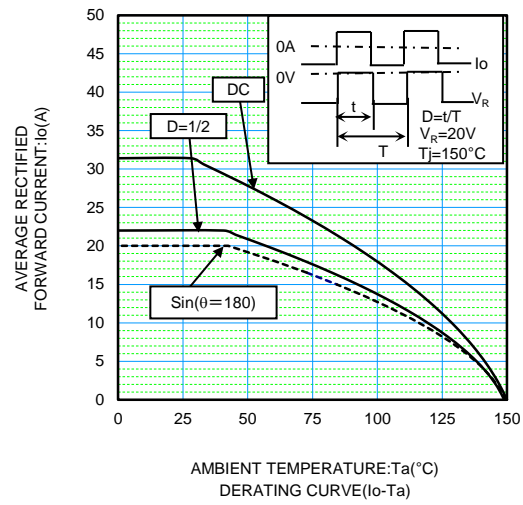
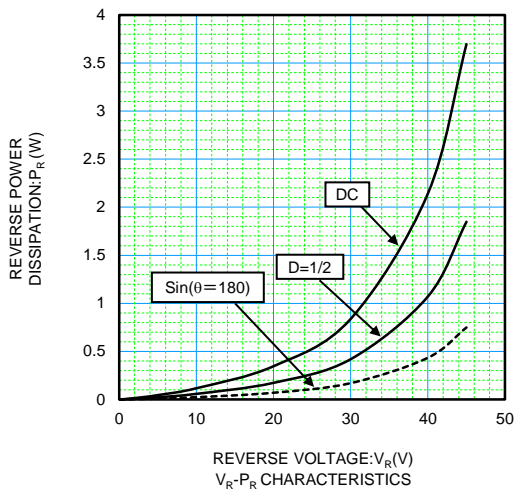
TIME:t(ms)
 I_{FSM} -t CHARACTERISTICS



TIME:t(s)
Rth-t CHARACTERISTICS



AVERAGE RECTIFIED FORWARD CURRENT: I_o (A)
Io-Pf CHARACTERISTICS



Notes

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