

## Schottky barrier diode

## RSX1001T3

## ●Applications

Switching power supply

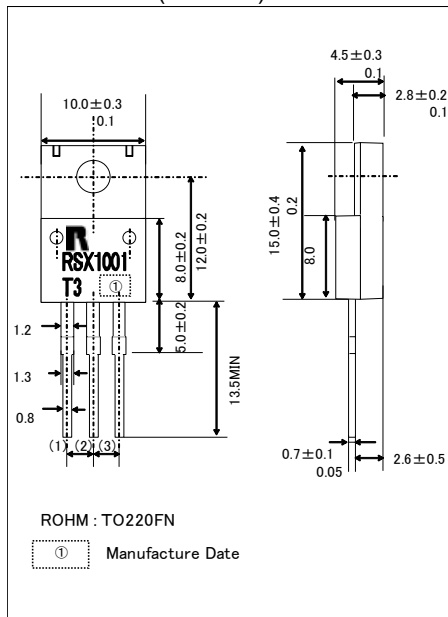
## ●Features

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

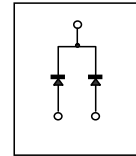
## ●Construction

Silicon epitaxial planar

## ●Dimensions (Unit : mm)



## ●Structure

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

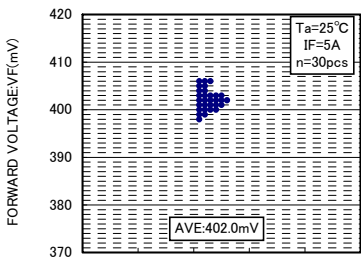
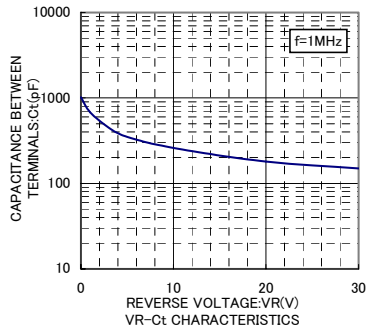
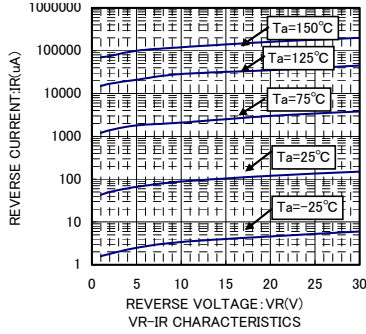
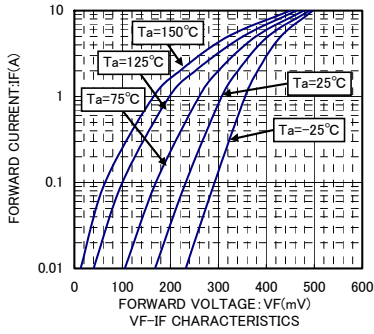
Parameter	Symbol	Limits	Unit
Reverse voltage (repetitive peak)	$V_{RM}$	30	V
Reverse voltage (DC)	$V_R$	30	V
Average rectified forward current (*1)	$I_o$	10	A
Forward current surge peak (60Hz · 1cyc) (*1)	$I_{FSM}$	150	A
Junction temperature	$T_j$	150	$^\circ\text{C}$
Storage temperature	$T_{stg}$	-40 to +150	$^\circ\text{C}$

(\*1)Business frequencies, Rating of R-load, 1/2  $I_o$  per diode,  $T_c=132^\circ\text{C}$ ●Electrical characteristic ( $T_a=25^\circ\text{C}$ )

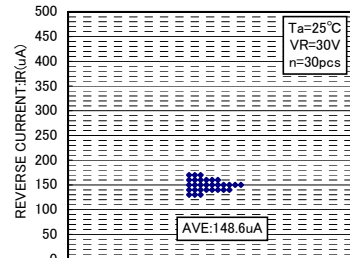
Parameter	Symbol	Min.	Typ.	Max.	Unit	Conditions
Forward voltage	$V_F$	-	-	0.45	V	$I_F=5\text{A}$
Reverse current	$I_R$	-	-	500	$\mu\text{A}$	$V_R=30\text{V}$
Reverse recovery time	$\theta_{jc}$	-	-	2.5	$^\circ\text{C}/\text{W}$	junction to case

Diodes

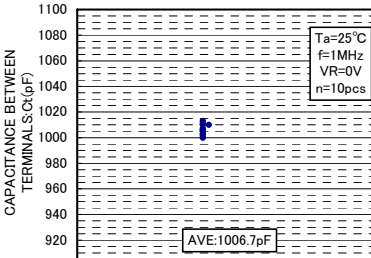
●Electrical characteristic curves



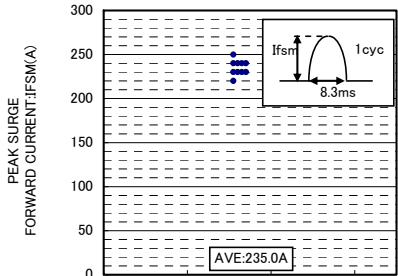
VF DISPERSION MAP



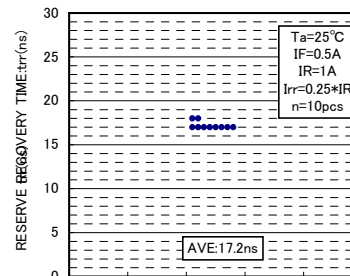
IR DISPERSION MAP



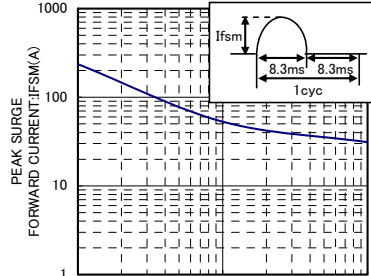
Ct DISPERSION MAP



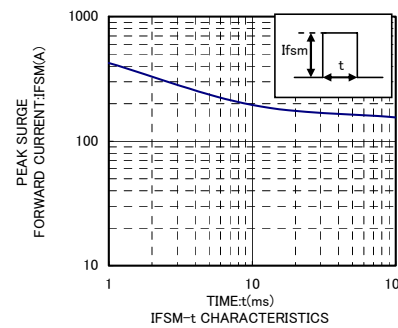
IFSM DISPERSION MAP



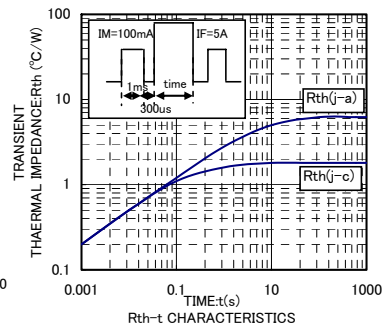
trr DISPERSION MAP



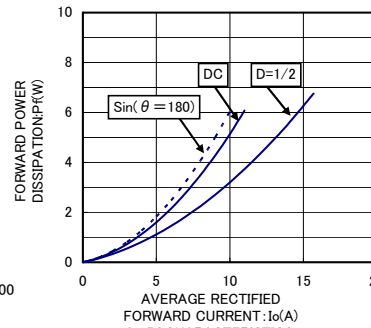
IFSM-CYCLE CHARACTERISTICS



IFSM-t CHARACTERISTICS

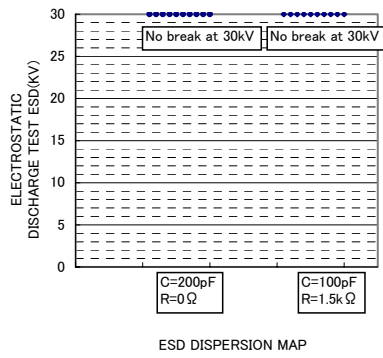
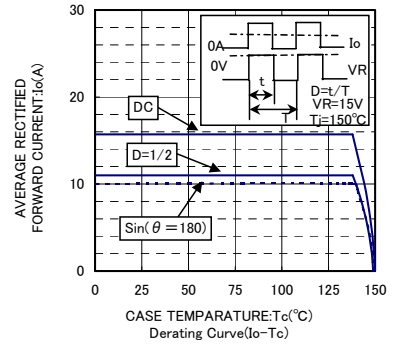
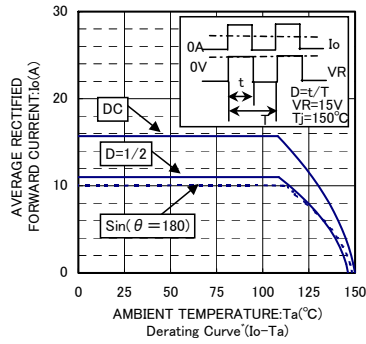
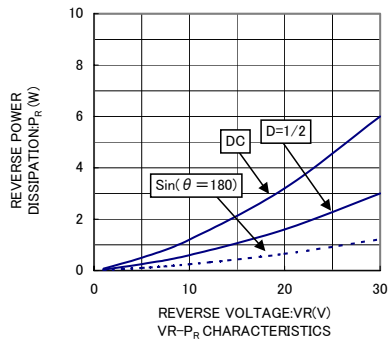


Rth-t CHARACTERISTICS



Io-Pf CHARACTERISTICS

Diodes



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