

# Schottky barrier diode

## RB085T-40

### ●Applications

Switching power supply

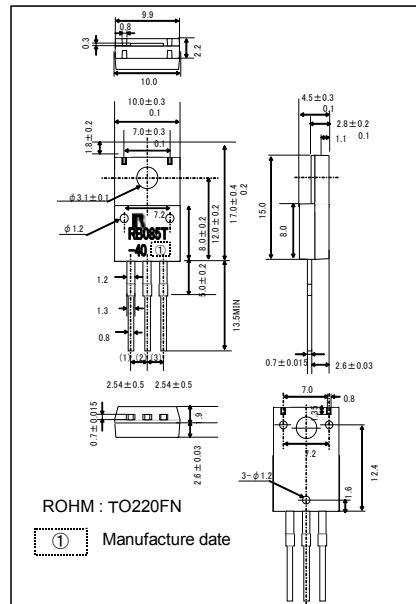
### ●Features

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

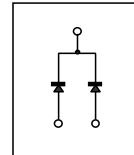
### ●Construction

Silicon epitaxial planar

### ●External 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)	$I_o$	10	A
Forward current surge peak (60Hz·1cyc) (*1)	$I_{FSM}$	100	A
Junction temperature	$T_j$	150	°C
Storage temperature	$T_{stg}$	-40 to +150	°C

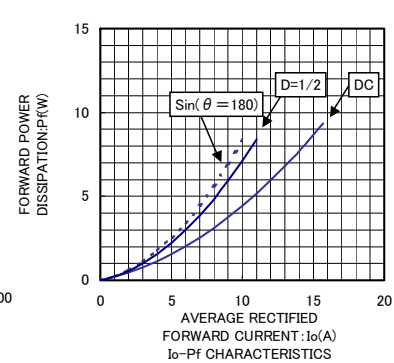
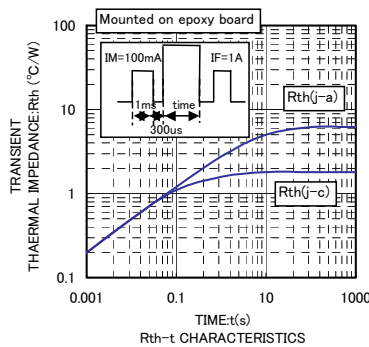
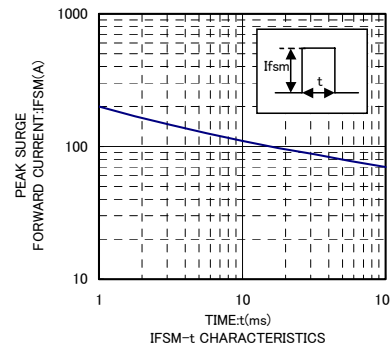
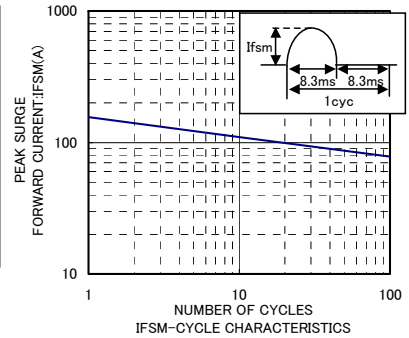
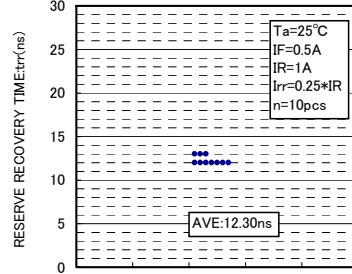
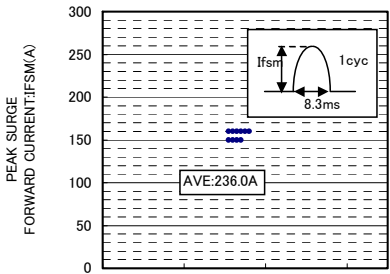
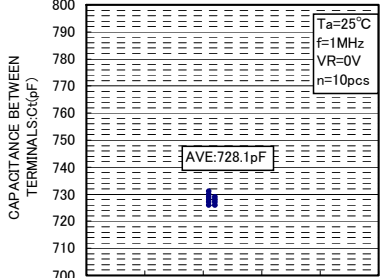
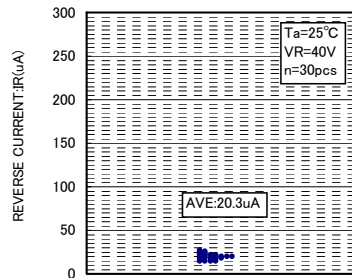
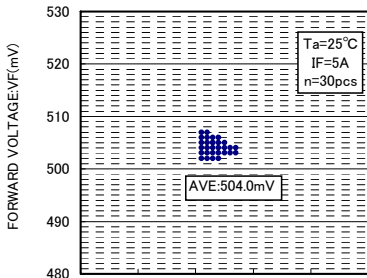
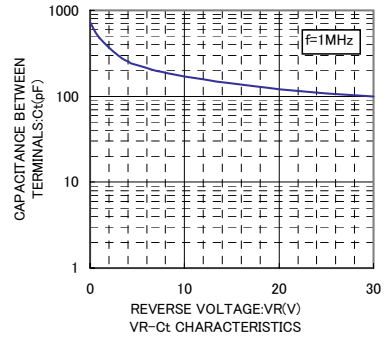
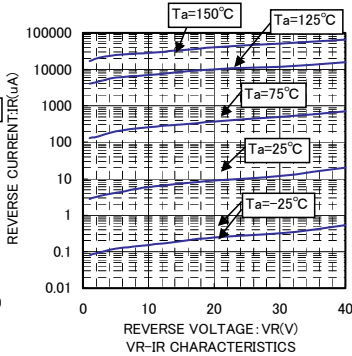
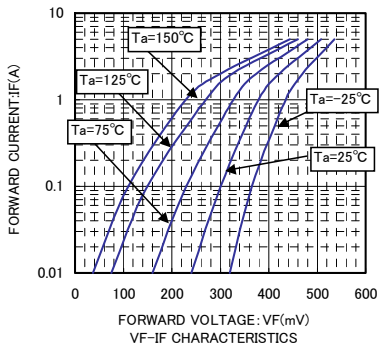
(\*1) $T_c=100^{\circ}\text{Cmax.}$  Per chip :  $I_o/2$

### ●Electrical characteristic (Ta=25°C)

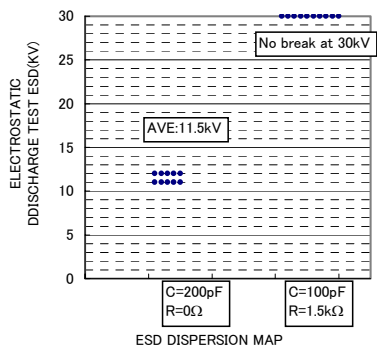
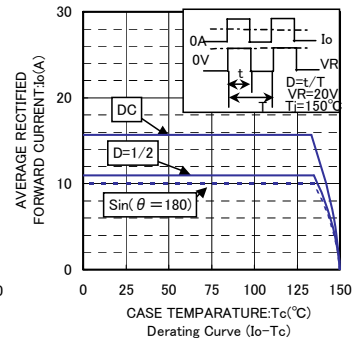
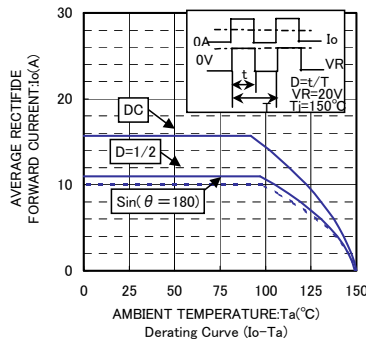
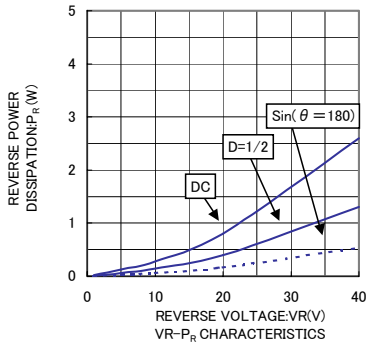
Parameter	Symbol	Min.	Typ.	Max.	Unit	Conditions
Forward voltage	$V_F$	-	-	0.55	V	$I_F=5\text{A}$
Reverse current	$I_R$	-	-	200	$\mu\text{A}$	$V_R=40\text{V}$
Thermal impedance	$\theta_{jc}$	-	-	2.5	°C/W	junction to case

Diodes

●Electrical characteristic curves



Diodes



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