# Schottky barrier diode RB095T-60

# Applications

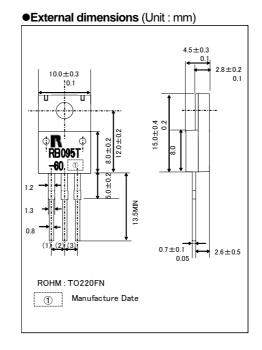
Switching power supply

## ● Features

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

## **●**Construction

Silicon epitaxial planar





# ● Absolute maximum ratings (Ta=25°C)

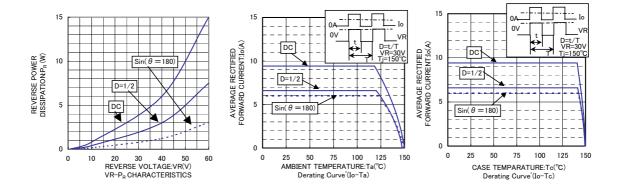
Parameter	Symbol	Limits	Unit	
Reverse voltage (repetitive)	$V_{RM}$	60	V	
Reverse voltage (DC)	$V_R$	60	V	
Average rectified forward current (*1)	lo	6	Α	
Forward current surge peak (60Hz • 1cyc)	I <sub>FSM</sub>	100	Α	
Average rectified forward current (*1)	Tj	150	°C	
Storage temperature	Tstg	-40 to +150	°C	

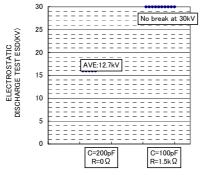
<sup>(\*1)</sup>Tc=100°Cmax per chip: lo/2

# ●Electrical characteristic (Ta=25°C)

Parameter	Symbol	Min.	Тур.	Max.	Unit	Conditions
Forward voltage	$V_{F}$	-	-	0.58	V	I <sub>F</sub> =3A
Reverse current	I <sub>R</sub>	-	-	300	μA	V <sub>R</sub> =60V
Thermal impedance	θјс	-	-	3.0	°C/W	junction to case

#### Electrical characteristic curves 1000000 1000 f=1MHz 100000 FORWARD CURRENT:IF(A) REVERSE CURRENT:IR(uA) CAPACITANCE BETWEEN 10000 TERMINALS:Ct(pF) 1000 100 0.1 10 0.1 0.01 0 0 100 200 300 400 500 600 700 800 REVERSE VOLTAGE:VR(V) VR-Ct CHARACTERISTICS FORWARD VOLTAGE: VF(mV) REVERSE VOLTAGE: VR(V) VF-IF CHARACTERISTICS VR-IR CHARACTERISTICS 200 800 550 Ta=25°C 180 750 REVERSE CURRENT:IR(u.A) 8 01 17 00 11 00 Ta=25°C VR=60V FORWARD VOLTAGE:VF(mV) IF=3A f=1MHz 700 CAPACITANCE BETWEEN n=30pcs 540 n=30pc 650 TERMINALS:Ct(pF) n=10pcs 600 530 550 520 450 510 AVE:514.4pF 350 20 300 500 VF DISPERSION MAP IR DISPERSION MAP Ct DISPERSION MAP 1000 300 RESERVE RECOVERY TIME:trr(ns) Ta=25°C PEAK SURGE FORWARD CURRENT:IFSM(A) FORWARD CURRENT:IFSM(A) 25 IF=0.5A IR=1A Irr=0.25\*IR 20 200 PEAK SURGE n=10pcs 15 150 AVE:163.0A 100 10 AVE:8.30ns 50 0 10 NUMBER OF CYCLES trr DISPERSION MAP IFSM DISRESION MAP IFSM-CYCLE CHARACTERISTICS 10 1000 IF=6A IMPEDANCE:Rth (°C/W) PEAK SURGE FORWARD CURRENT:IFSM(A) FORWARD POWER DISSIPATION:Pf(W) Rth(j-a) TRANSIENT 100 Rth(j-c) THAERMAL 10 0.1 TIME:t(ms) 10 0.001 1000 2 4 6 AVERAGE RECTIFIED TIME!!(ms) IFSM-t CHARACTERISTICS 100 Rth-t CHARACTERISTICS FORWARD CURRENT: Io(A) Io-Pf CHARACTERISTICS





ESD DISPERSION MAP

Rev.B

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