Schottky barrier diode RB095T-40

Applications

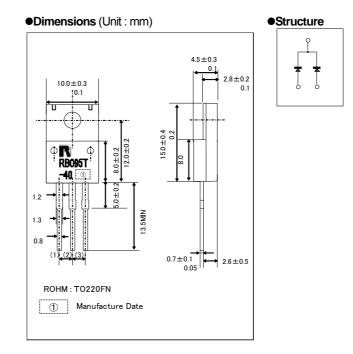
Switching power supply

● Features

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

●Construction

Silicon epitaxial planar



● Absolute maximum ratings (Ta=25°C)

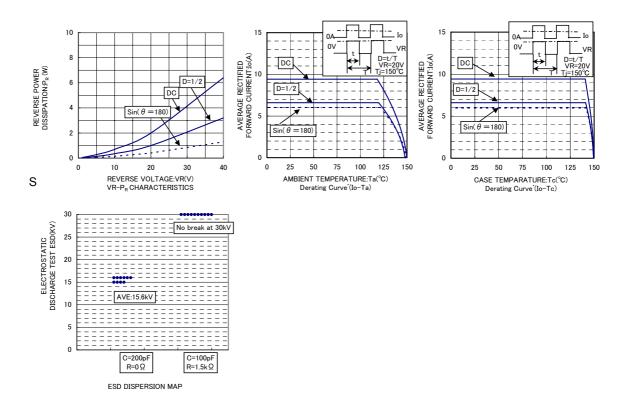
Parameter	Symbol	Limits	Unit
Reverse voltage (repetitive peak)	V_{RM}	45	V
Reverse voltage (DC)	V_R	40	V
Average rectified forward current(*1)	lo	6	Α
Forward current surge peak (60Hz · 1cyc) (*1)	I _{FSM}	100	Α
Junction temperature	Tj	150	°C
Storage temperature	Tstg	-40 to +150	°C

^(*1)Business frequencies, Rating of R-load, 1/2 lo per diode, Tc=136°C

●Electrical characteristic (Ta=25°C)

Parameter	Symbol	Min.	Тур.	Max.	Unit	Conditions
Forward voltage	V_{F}	-	-	0.55	V	I _F =3A
Reverse current	I _R	-	-	0.1	mA	V _R =40V
Thermal impedance	θјс	-	-	3.00	°C/W	junction to case

Electrical characteristic curves 1000000 f=1MHz 100000 FORWARD CURRENT:IF(A) REVERSE CURRENT:IR(uA) CAPACITANCE BETWEEN TERMINALS:Ct(pF) 10000 1000 100 0.1 0.1 0.01 0.01 200 300 400 500 600 700 0 30 0 100 15 20 25 30 0 REVERSE VOLTAGE: VR(V) VR-IR CHARACTERISTICS REVERSE VOLTAGE:VR(V) FORWARD VOLTAGE: VF(mV) VF-IF CHARACTERISTICS VR-Ct CHARACTERISTICS 500 Ta=25°C IF=3A Ta=25°C VR=40V 180 Ta=25°C f=1MHz 640 FORWARD VOLTAGE:VF(mV) REVERSE CURRENT:IR(uA) 490 160 n=30pcs CAPACITANCE BETWEEN 630 VR=0V 140 620 480 120 610 100 600 470 80 590 580 460 40 AVE:472.9mV AVE:14.2uA 570 20 560 AVE:617.9pF 550 VF DISPERSION MAP IR DISPERSION MAP Ct DISPERSION MAP 1000 300 Ta=25°C IF=0.5A IR=1A RESERVE RECOVERY TIME:tm(ns) PEAK SURGE FORWARD CURRENT:IFSM(A) PEAK SURGE FORWARD CURRENT:IFSM(A) 250 25 n=10pcs 200 20 150 15 100 10 50 AVE:11.40ns AVE:178.0A 10 0 10 100 NUMBER OF CYCLES trr DISPERSION MAP IFSM DISPERSION MAP IFSM-CYCLE CHARACTERISTICS THAERMAL IMPEDANCE:Rth (°C/W) PEAK SURGE FORWARD CURRENT:IFSM(A) FORWARD POWER DISSIPATION:Pf(W) TRANSIENT 10 0.001 1000 10 TIME:t(ms) 100 TIME:t(s) FORWARD CURRENT: Io(A) IFSM-t CHARACTERISTICS Rth-t CHARACTERISTICS Io-Pf CHARACTERISTICS



Notes

- No technical content pages of this document may be reproduced in any form or transmitted by any
 means without prior permission of ROHM CO.,LTD.
- The contents described herein are subject to change without notice. The specifications for the
 product described in this document are for reference only. Upon actual use, therefore, please request
 that specifications to be separately delivered.
- Application circuit diagrams and circuit constants contained herein are shown as examples of standard
 use and operation. Please pay careful attention to the peripheral conditions when designing circuits
 and deciding upon circuit constants in the set.
- Any data, including, but not limited to application circuit diagrams information, described herein are intended only as illustrations of such devices and not as the specifications for such devices. ROHM CO.,LTD. disclaims any warranty that any use of such devices shall be free from infringement of any third party's intellectual property rights or other proprietary rights, and further, assumes no liability of whatsoever nature in the event of any such infringement, or arising from or connected with or related to the use of such devices.
- Upon the sale of any such devices, other than for buyer's right to use such devices itself, resell or
 otherwise dispose of the same, no express or implied right or license to practice or commercially
 exploit any intellectual property rights or other proprietary rights owned or controlled by
- ROHM CO., LTD. is granted to any such buyer.
- Products listed in this document are no antiradiation design.

The products listed in this document are designed to be used with ordinary electronic equipment or devices (such as audio visual equipment, office-automation equipment, communications devices, electrical appliances and electronic toys).

Should you intend to use these products with equipment or devices which require an extremely high level of reliability and the malfunction of which would directly endanger human life (such as medical instruments, transportation equipment, aerospace machinery, nuclear-reactor controllers, fuel controllers and other safety devices), please be sure to consult with our sales representative in advance.

It is our top priority to supply products with the utmost quality and reliability. However, there is always a chance of failure due to unexpected factors. Therefore, please take into account the derating characteristics and allow for sufficient safety features, such as extra margin, anti-flammability, and fail-safe measures when designing in order to prevent possible accidents that may result in bodily harm or fire caused by component failure. ROHM cannot be held responsible for any damages arising from the use of the products under conditions out of the range of the specifications or due to non-compliance with the NOTES specified in this catalog.

Thank you for your accessing to ROHM product informations.

More detail product informations and catalogs are available, please contact your nearest sales office.

ROHM Customer Support System

THE AMERICAS / EUROPE / ASIA / JAPAN

www.rohm.com

Contact us : webmaster@rohm.co.jp

Copyright © 2008 ROHM CO.,LTD.

ROHM CO., LTD. 21 Saiin Mizosaki-cho, Ukyo-ku, Kyoto 615-8585, Japan

an TEL:+81-75-311-2121 FAX:+81-75-315-0172

