MBRAF260T3G, NRVBAF260T3G

Surface Mount Schottky Power Rectifier

This device employs the Schottky Barrier principle in a large area metal-to-silicon power diode. State-of-the-art geometry features epitaxial construction with oxide passivation and metal overlay contact. Ideally suited for low voltage, high frequency rectification, or as free wheeling and polarity protection diodes in surface mount applications where compact size and weight are critical to the system.

Features

- Low Profile Package for Space Constrained Applications
- Rectangular Package for Automated Handling
- Highly Stable Oxide Passivated Junction
- 150°C Operating Junction Temperature
- Guard-Ring for Stress Protection
- NRVB Prefix for Automotive and Other Applications Requiring Unique Site and Control Change Requirements; AEC-Q101 Qualified and PPAP Capable
- These are Pb-Free and Halide-Free Devices

Mechanical Charactersistics

- Case: Epoxy, Molded, Epoxy Meets UL 94, V-0
- Weight: 95 mg (approximately)
- Finish: All External Surfaces Corrosion Resistant and Terminal Leads are Readily Solderable
- Lead and Mounting Surface Temperature for Soldering Purposes: 260°C Max. for 10 Seconds
- Cathode Polarity Band
- Device Meets MSL 1 Requirements
- ESD Ratings: Machine Model = C

Human Body Model = 3B



ON Semiconductor®

http://onsemi.com

SCHOTTKY BARRIER RECTIFIER 2.0 AMPERE 60 VOLTS



SMA-FL CASE 403AA STYLE 6

MARKING DIAGRAM



RAG = Specific Device Code A = Assembly Location

Y = Year WW = Work Week

■ = Pb-Free Package (Note: Microdot may be in either location)

ORDERING INFORMATION

Device	Package	Shipping [†]
MBRAF260T3G	SMA-FL (Pb-Free)	5000 / Tape & Reel
NRVBAF260T3G	SMA-FL (Pb-Free)	5000 / Tape & Reel

[†]For information on tape and reel specifications, including part orientation and tape sizes, please refer to our Tape and Reel Packaging Specification Brochure, BRD8011/D.

MBRAF260T3G, NRVBAF260T3G

MAXIMUM RATINGS

Rating	Symbol	Value	Unit
Peak Repetitive Reverse Voltage Working Peak Reverse Voltage DC Blocking Voltage	V _{RRM} V _{RWM} V _R	60	V
Average Rectified Forward Current (At Rated V_R , $T_L = 120$ °C)	Io	2.0	А
Peak Repetitive Forward Current (Rated V _R , Square Wave, 20 kHz) T _L = 90°C	I _{FRM}	4.0	Α
Non-Repetitive Peak Surge Current (Surge Applied at Rated Load Conditions Halfwave, Single Phase, 60 Hz)	I _{FSM}	60	А
Storage Temperature Range	T _{stg}	-55 to +150	°C
Operating Junction Temperature	TJ	-55 to +150	°C
Voltage Rate of Change (Rated V_R , $T_J = 25^{\circ}C$)	dv/dt	10,000	V/μs

Stresses exceeding those listed in the Maximum Ratings table may damage the device. If any of these limits are exceeded, device functionality should not be assumed, damage may occur and reliability may be affected.

THERMAL CHARACTERISTICS

Characteristic	Symbol	Value	Unit
Thermal Resistance, Junction-to-Lead (Note 1) Thermal Resistance, Junction-to-Ambient (Note 1)	$R_{ hetaJL} \ R_{ hetaJA}$	25 90	°C/W

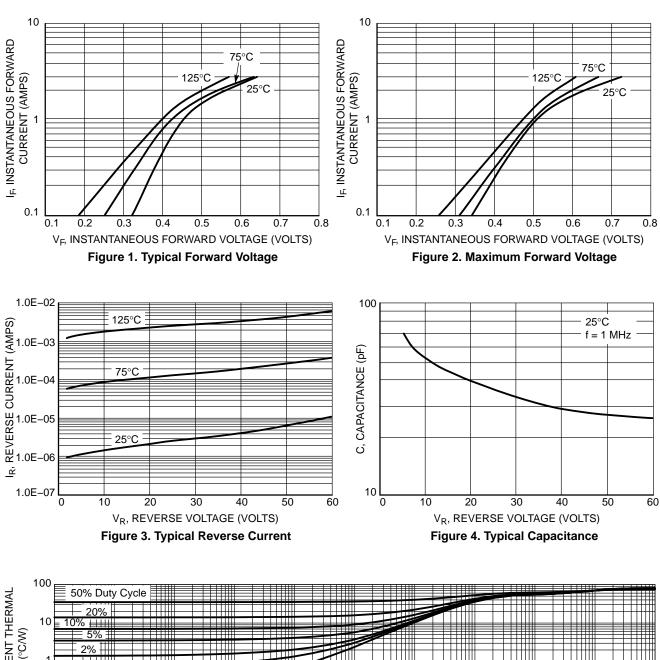
^{1. 1} inch square pad size (1 x 0.5 inch for each lead) on FR4 board.

ELECTRICAL CHARACTERISTICS

Characteristic	Symbol	Va	alue	Unit
Maximum Instantaneous Forward Voltage (Note 2)	VF	T _J = 25°C	T _J = 125°C	V
$(i_F = 1.0 \text{ A})$ $(i_F = 2.0 \text{ A})$		0.51 0.63	0.475 0.55	
Maximum Instantaneous Reverse Current (Note 2)	I _R	T _J = 25°C	T _J = 125°C	mA
(V _R = 60 V)		0.2	20	

Product parametric performance is indicated in the Electrical Characteristics for the listed test conditions, unless otherwise noted. Product performance may not be indicated by the Electrical Characteristics if operated under different conditions. 2. Pulse Test: Pulse Width \leq 250 μ s, Duty Cycle \leq 2.0%.

MBRAF260T3G, NRVBAF260T3G



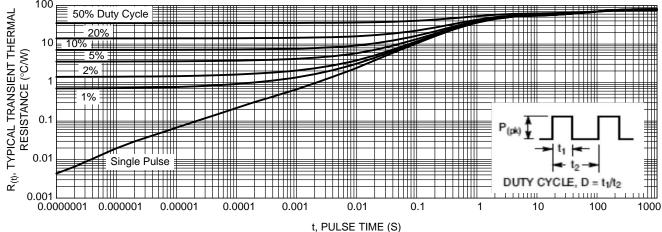
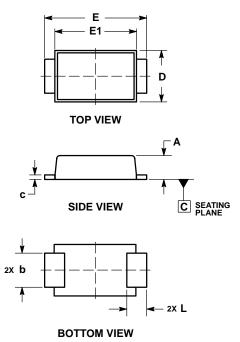


Figure 5. Typical Transient Thermal Response, Junction-to-Ambient

MBRAF260T3G, NRVBAF260T3G

PACKAGE DIMENSIONS

SMA-FL CASE 403AA ISSUE O

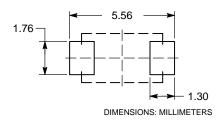


NOTES:

- DIMENSIONING AND TOLERANCING PER
 ASME V14 FM 1004
- ASME Y14.5M, 1994. 2. CONTROLLING DIMENSION: MILLIMETERS.

	MILLIMETERS		
DIM	MIN	MAX	
Α	0.90	1.10	
b	1.25	1.65	
С	0.15	0.30	
D	2.40	2.80	
E	4.80	5.40	
E1	4.00	4.60	
L	0.70	1.10	

RECOMMENDED SOLDER FOOTPRINT*



*For additional information on our Pb–Free strategy and soldering details, please download the ON Semiconductor Soldering and Mounting Techniques Reference Manual, SOLDERRM/D.

ON Semiconductor and was are registered trademarks of Semiconductor Components Industries, LLC (SCILLC). SCILLC owns the rights to a number of patents, trademarks, copyrights, trade secrets, and other intellectual property. A listing of SCILLC's product/patent coverage may be accessed at www.onsemi.com/site/pdf/Patent-Marking.pdf. SCILLC reserves the right to make changes without further notice to any products herein. SCILLC makes no warranty, representation or guarantee regarding the suitability of its products or any particular purpose, nor does SCILLC assume any liability arising out of the application or use of any product or circuit, and specifically disclaims any and all liability, including without limitation special, consequential or incidental damages. "Typical" parameters which may be provided in SCILLC data sheets and/or specifications can and do vary in different applications and actual performance may vary over time. All operating parameters, including "Typicals" must be validated for each customer application by customer's technical experts. SCILLC does not convey any license under its patent rights or the rights of others. SCILLC products are not designed, intended, or authorized for use as components in systems intended for surgical implant into the body, or other applications intended to support or sustain life, or for any other application in which the failure of the SCILLC product could create a situation where personal injury or death may occur. Should Buyer purchase or use SCILLC products for any such unintended or unauthorized application, Buyer shall indemnify and hold SCILLC and its officers, employees, subsidiaries, affiliates, and distributors harmless against all claims, costs, damages, and expenses, and reasonable attorney fees arising out of, directly or indirectly, any claim of personal injury or death associated with such unintended or unauthorized use, even if such claim alleges that SCILLC was negligent regarding the design or manufacture of the part. SCILLC is an Equal Opportun

PUBLICATION ORDERING INFORMATION

LITERATURE FULFILLMENT:

Literature Distribution Center for ON Semiconductor P.O. Box 5163, Denver, Colorado 80217 USA Phone: 303–675–2175 or 800–344–3860 Toll Free USA/Canada

Fax: 303–675–2176 or 800–344–3867 Toll Free USA/Canada Email: orderlit@onsemi.com N. American Technical Support: 800–282–9855 Toll Free USA/Canada

Furnne Middle Fast and Africa Technical Support:

Europe, Middle East and Africa Technical Support: Phone: 421 33 790 2910 Japan Customer Focus Center

Japan Customer Focus Center Phone: 81–3–5817–1050 ON Semiconductor Website: www.onsemi.com

Order Literature: http://www.onsemi.com/orderlit

For additional information, please contact your local Sales Representative

ПОСТАВКА ЭЛЕКТРОННЫХ КОМПОНЕНТОВ

многоканальный

Общество с ограниченной ответственностью «МосЧип» ИНН 7719860671 / КПП 771901001 Адрес: 105318, г.Москва, ул.Щербаковская д.3, офис 1107

Данный компонент на территории Российской Федерации Вы можете приобрести в компании MosChip.

Для оперативного оформления запроса Вам необходимо перейти по данной ссылке:

http://moschip.ru/get-element

Вы можете разместить у нас заказ для любого Вашего проекта, будь то серийное производство или разработка единичного прибора.

В нашем ассортименте представлены ведущие мировые производители активных и пассивных электронных компонентов.

Нашей специализацией является поставка электронной компонентной базы двойного назначения, продукции таких производителей как XILINX, Intel (ex.ALTERA), Vicor, Microchip, Texas Instruments, Analog Devices, Mini-Circuits, Amphenol, Glenair.

Сотрудничество с глобальными дистрибьюторами электронных компонентов, предоставляет возможность заказывать и получать с международных складов практически любой перечень компонентов в оптимальные для Вас сроки.

На всех этапах разработки и производства наши партнеры могут получить квалифицированную поддержку опытных инженеров.

Система менеджмента качества компании отвечает требованиям в соответствии с ГОСТ Р ИСО 9001, ГОСТ РВ 0015-002 и ЭС РД 009

Офис по работе с юридическими лицами:

105318, г. Москва, ул. Щербаковская д. 3, офис 1107, 1118, ДЦ «Щербаковский»

Телефон: +7 495 668-12-70 (многоканальный)

Факс: +7 495 668-12-70 (доб.304)

E-mail: info@moschip.ru

Skype отдела продаж:

moschip.ru moschip.ru_6 moschip.ru 4 moschip.ru 9