



Release Note for MICRORB-10035-MLP Lot No. N218181033

ON Semiconductor®

www.onsemi.com

Parts Tested

- MICRORB-10035-MLP Lot no. N218181033

APPLICATION NOTE

Test Summary

The following parameters are specific to the above-mentioned lot and differ from those specified in the product datasheet. All other performance parameters for this lot can be found in the product datasheet.

Table 1. Lot Specific Parameters

Parameter	Condition	Min	Typ	Max	Unit
Breakdown voltage (Vbr1)*	21°C	24.91	25.41	25.91	V
Ovvoltage (Vov)			10	15	V

*Vbr1 is defined as the bias voltage at which dark current = 10 nA. (Measured at wafer level.)

Temperature Dependence of Breakdown Voltage

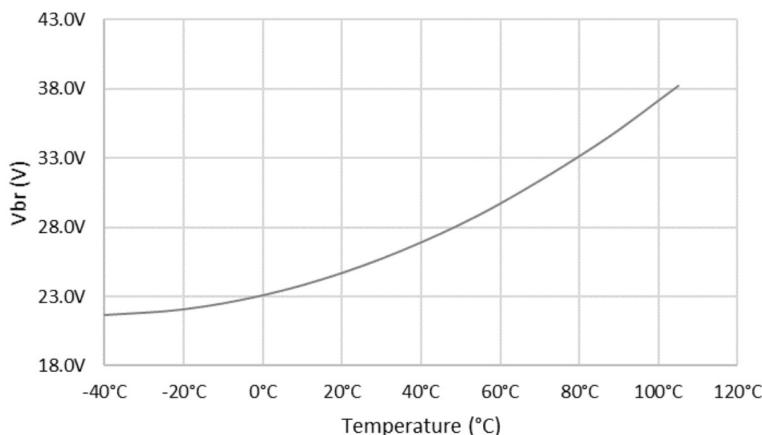


Figure 1. Temperature Dependence of Vbr2

The value of V_{br2}^{\dagger} as a function of temperature is plotted in Figure 1 and can be approximated by the equation:

$$V_{br2} = a \cdot T^2 + b \cdot T + c \quad (\text{eq. 1})$$

where T = temperature in $^{\circ}\text{C}$ and fit parameters are given in Table 2.

Table 2. Fit Parameters for $V_{br2}(T)$

a	7.44E-04
b	6.53E-02
c	23.12

[†] V_{br2} is defined as the value of the 0 intercept of a straight line fit to a plot of \sqrt{I} vs V , where I is measured dark current and V is applied reverse bias voltage and the part is in Geiger mode. (Measured on packaged parts.)

SensL is a registered trademark of Semiconductor Components Industries, LLC (SCILLC) or its subsidiaries in the United States and/or other countries.

ON Semiconductor and  are trademarks of Semiconductor Components Industries, LLC dba ON Semiconductor or its subsidiaries in the United States and/or other countries. ON Semiconductor owns the rights to a number of patents, trademarks, copyrights, trade secrets, and other intellectual property. A listing of ON Semiconductor's product/patent coverage may be accessed at www.onsemi.com/site/pdf/Patent-Marking.pdf. ON Semiconductor reserves the right to make changes without further notice to any products herein. ON Semiconductor makes no warranty, representation or guarantee regarding the suitability of its products for any particular purpose, nor does ON Semiconductor 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. Buyer is responsible for its products and applications using ON Semiconductor products, including compliance with all laws, regulations and safety requirements or standards, regardless of any support or applications information provided by ON Semiconductor. "Typical" parameters which may be provided in ON Semiconductor 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. ON Semiconductor does not convey any license under its patent rights nor the rights of others. ON Semiconductor products are not designed, intended, or authorized for use as a critical component in life support systems or any FDA Class 3 medical devices or medical devices with a same or similar classification in a foreign jurisdiction or any devices intended for implantation in the human body. Should Buyer purchase or use ON Semiconductor products for any such unintended or unauthorized application, Buyer shall indemnify and hold ON Semiconductor 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 ON Semiconductor was negligent regarding the design or manufacture of the part. ON Semiconductor is an Equal Opportunity/Affirmative Action Employer. This literature is subject to all applicable copyright laws and is not for resale in any manner.

PUBLICATION ORDERING INFORMATION

LITERATURE FULFILLMENT:

Literature Distribution Center for ON Semiconductor
19521 E. 32nd Pkwy, Aurora, Colorado 80011 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

Europe, Middle East and Africa Technical Support:
Phone: 421 33 790 2910

ON Semiconductor Website: www.onsemi.com

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

For additional information, please contact your local
Sales Representative