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## Release Note for MicroRB-10020-MLP-TR(1) Lot No. EE5823xxHix



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### Parts Tested

- MicroRB-10020-MLP-TR
- MicroRB-10020-MLP-TR1

### Lot no:

- E582314HIA
- E582314HIB
- E582315HIC
- E582316HIIH
- E582316HIZ
- E582317HIA
- E582318HIA
- E582318HIL
- E582319HIF
- E582320HIA
- E582320HIB
- E582321HIC

### Test Summary

The following parameters are specific to the above-mentioned lots. All other performance parameters for this lot can be found in the product datasheet.

**Table 1. LOT SPECIFIC PARAMETERS**

| Parameter                  | Symbol | Condition | Min  | Typ  | Max  | Unit |
|----------------------------|--------|-----------|------|------|------|------|
| Breakdown Voltage (Note 1) | Vbr2   | 21°C      | 23.3 | 23.7 | 24.5 | V    |

1. Vbr2 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.)

## APPLICATION NOTE

Temperature Dependence of Breakdown Voltage

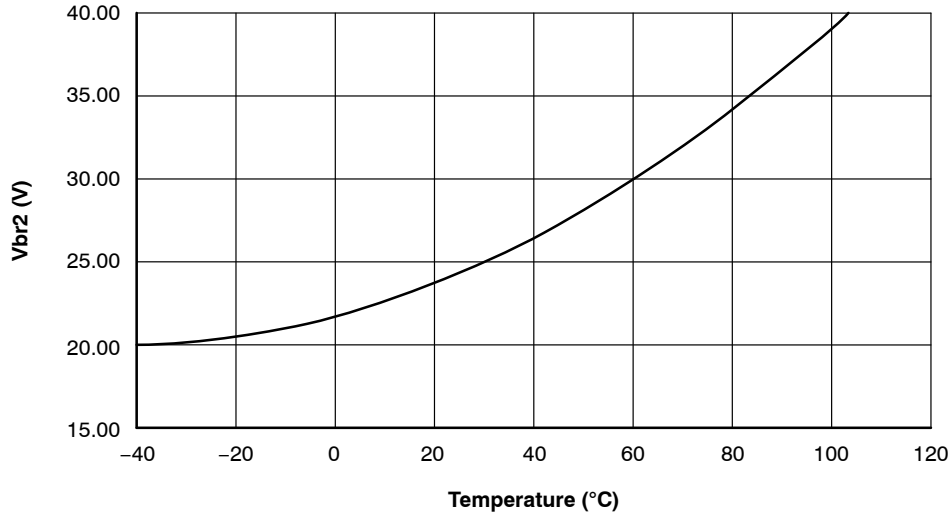


Figure 1. Temperature Dependence of Vbr2

The value of Vbr2 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 °C and fit parameters are given in Table 2.


Datasheet

The datasheet for this device is available at:

<https://www.onsemi.com/pub/Collateral/MICRORB-SERIES-D.PDF>

Table 2. FIT PARAMETERS FOR Vbr2 T)

|          |          |
|----------|----------|
| <b>a</b> | 9.17E-04 |
| <b>b</b> | 8.1E-02  |
| <b>c</b> | 21.8     |

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