

# ERB81-004

## SCHOTTKY-BARRIER RECTIFIER DIODE

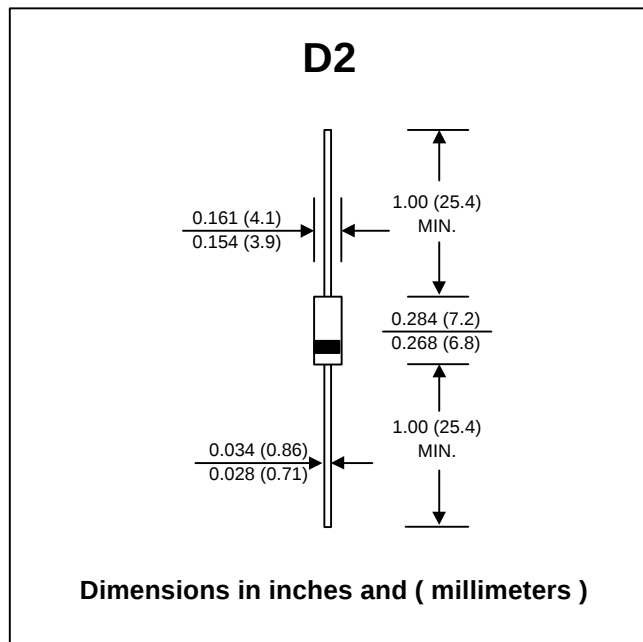
**PRV : 40 Volts**  
**Io : 2.0 Amperes**

### FEATURES :

- \* High current capability
- \* High surge current capability
- \* High reliability
- \* High efficiency
- \* Low power loss
- \* Low forward voltage drop
- \* Low cost
- \* Pb / RoHS Free

### MECHANICAL DATA :

- \* Case : D2 Molded plastic
- \* Epoxy : UL94V-O rate flame retardant
- \* Lead : Axial lead solderable per MIL-STD-202, Method 208 guaranteed
- \* Polarity : Color band denotes cathode end
- \* Mounting position : Any
- \* Weight : 0.465 gram



### MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Rating at 25 °C ambient temperature unless otherwise specified.

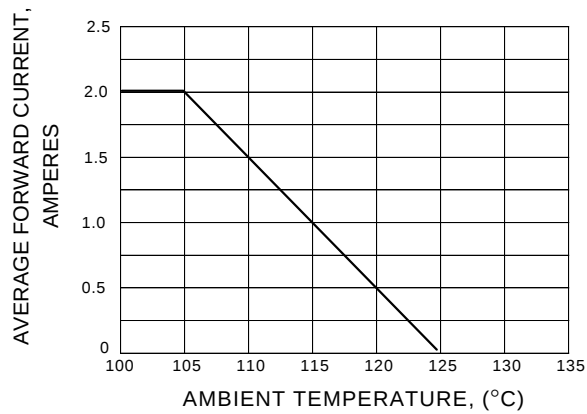
Single phase, half wave, 60 Hz, resistive or inductive load.

For capacitive load, derate current by 20%.

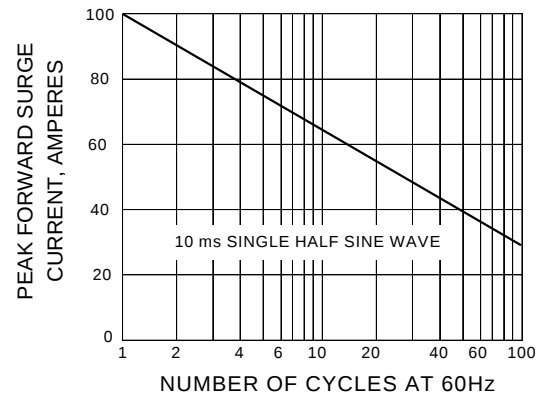
| RATING                                                                 | SYMBOL      | VALUE         | UNIT |
|------------------------------------------------------------------------|-------------|---------------|------|
| Maximum Recurrent Peak Reverse Voltage                                 | $V_{RRM}$   | 40            | V    |
| Maximum DC Blocking Voltage                                            | $V_{DC}$    | 40            | V    |
| Maximum Average Forward Current                                        | $I_{F(AV)}$ | 2.0           | A    |
| Maximum Non-Repetitive Peak Forward Surge Current<br>(Sin wave, 10ms ) | $I_{FSM}$   | 100           | A    |
| Maximum Forward Voltage at $I_F = 2.0$ A                               | $V_F$       | 0.55          | V    |
| Maximum Reverse Current at $V_R = V_{RRM}$                             | $I_R$       | 5.0           | mA   |
| Junction Temperature Range                                             | $T_J$       | - 40 to + 125 | °C   |
| Storage Temperature Range                                              | $T_{STG}$   | - 40 to + 125 | °C   |

## RATING AND CHARACTERISTIC CURVES ( ERB81-004 )

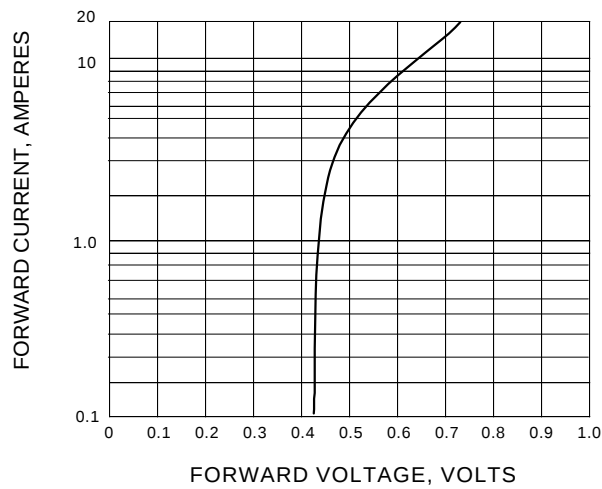
**FIG.1 - FORWARD CURRENT DERATING CURVE**



**FIG.2 - MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT**



**FIG.3 - TYPICAL FORWARD CHARACTERISTICS**



**FIG.4 - TYPICAL REVERSE CHARACTERISTICS**

