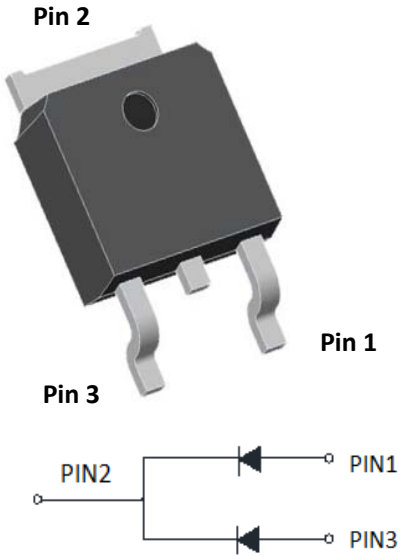
# Schottky Diodes




## Features

- High frequency operation
- High purity, high temperature epoxy encapsulation for enhanced mechanical strength and moisture resistance
- Guard ring for enhanced ruggedness and long term reliability

## Typical Applications

Typical applications are in switching power supplies, converters, freewheeling diodes, and reverse battery protection.

## Mechanical Data

- **Package**: TO-252
  Molding compound meets UL 94 V-0 flammability rating, RoHS-compliant
- **Terminals**: Tin plated leads, solderable per J-STD-002 and JESD22-B102
- **Polarity**: As marked

## ■Maximum Ratings ($T_a$=25℃ Unless otherwise specified）

| PARAMETER | SYMBOL | UNIT | MBRL20200CD |
|---|---|---|---|
| Device marking code | | | MBRL20200CD |
| Repetitive Peak Reverse Voltage | $V_{RRM}$ | V | 200 |
| Average Rectified Output Current @60Hz sine wave, R-load, $T_{c(FIG.1)}$ | $I_O$ | A | 20 |
| Surge(Non-repetitive)Forward Current @60Hz half sine-wave, 1 cycle, $T_a$=25℃ | $I_{FSM}$ | A | 150 |
| Current Squared Time @1ms≤t<8.3ms Tj=25℃ | $I^2t$ | $A^2s$ | 94 |
| Storage Temperature | Tstg | ℃ | -55 ~ +150 |
| Junction Temperature | Tj | ℃ | -55 ~ +150 |

## ■Electrical Characteristics（$T_a$=25℃ Unless otherwise specified）

| PARAMETER | SYMBOL | UNIT | TEST CONDITIONS | MBRL20200CD |
|---|---|---|---|---|
| Maximum instantaneous forward voltage drop per diode | $V_{FM}$ | V | $I_{FM}$=10.0A | 0.85 |
| Maximum DC reverse current at rated DC blocking voltage per diode | $I_{RRM1}$ | mA | $V_{RM}=V_{RRM}$ $T_a$=25℃ | 0.1 |
| | $I_{RRM2}$ | | $V_{RM}=V_{RRM}$ $T_a$=100℃ | 20 |

Note1:Pulse test:300uS pulse widh,1% duty cycle

Note2:Pulse test:pulse widh 40mS

## ■Thermal Characteristics （$T_a$=25℃ Unless otherwise specified）

| PARAMETER | | SYMBOL | UNIT | MBRL20200CD |
|---|---|---|---|---|
| Thermal Resistance | Between junction and case | $R_{\theta J-C}$ | ℃/W | 5.0 |

## ■Ordering Information (Example)

| PREFERED P/N | UNIT WEIGHT(g) | MINIIMUM PACKAGE(pcs) | INNER BOX QUANTITY(pcs) | OUTER CARTON QUANTITY(pcs) | DELIVERY MODE |
|---|---|---|---|---|---|
| MBRL20200CD | Approximate 0.32 | 2500 | 2500 | 25000 | Reel |

## ■Characteristics (Typical)

FIG1:Io -Tc Curve

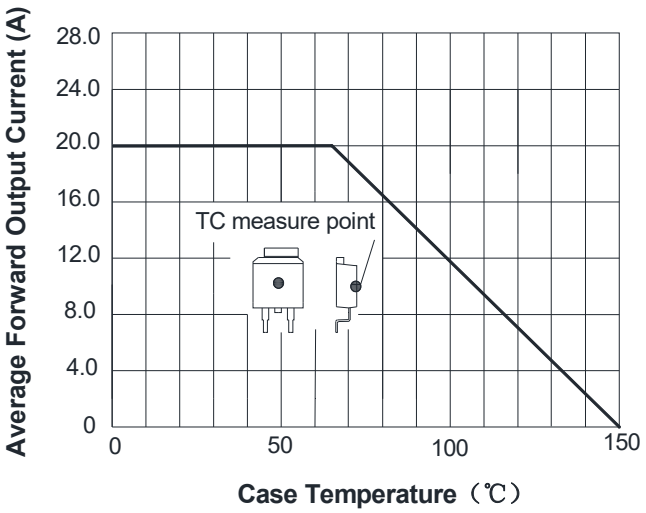



FIG2:Surge Forward Current Capability

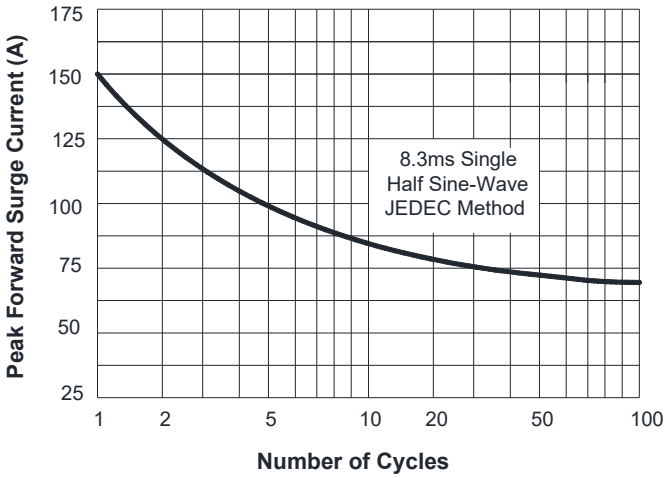



FIG3: Forward Voltage

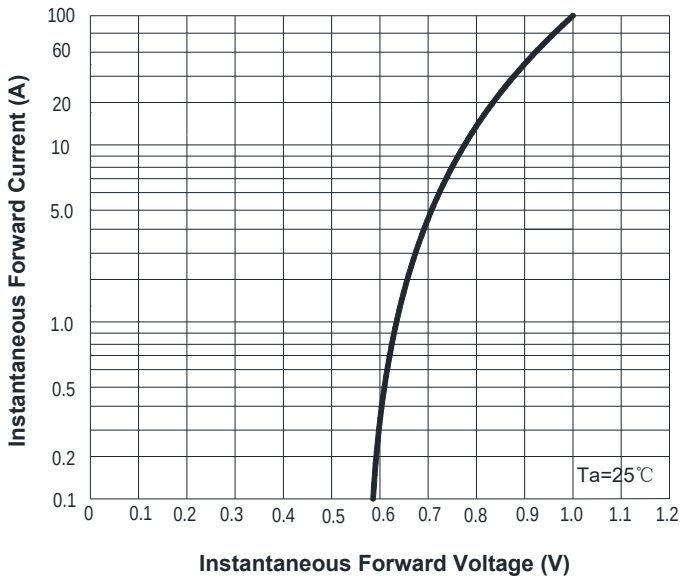
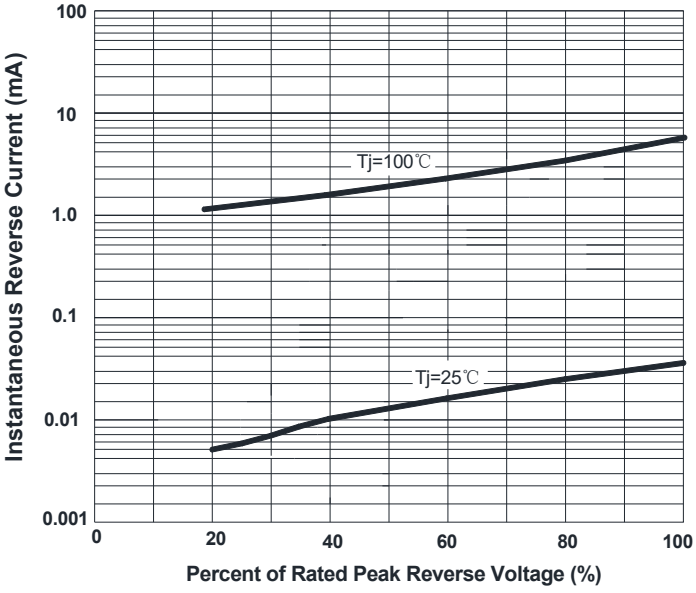
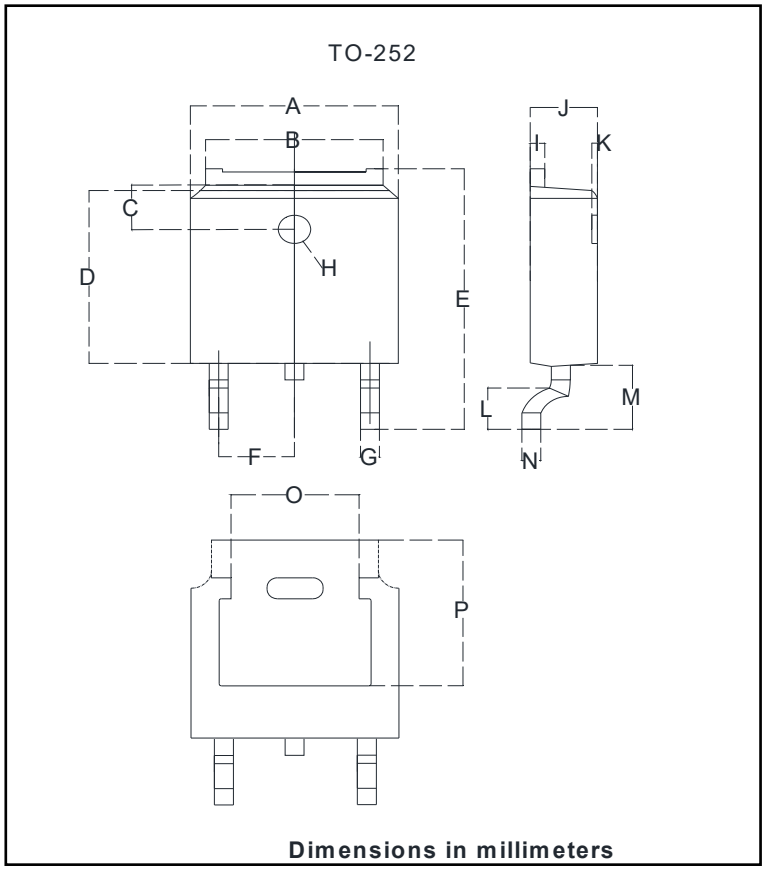



FIG.4: Typical Reverse Characteristics



## ■Outline Dimensions




| TO-252 | | |
|---|---|---|
| Dim | Min | Max |
| A | 6.500 | 6.700 |
| B | 5.100 | 5.460 |
| C | 1.400 | 1.800 |
| D | 6.000 | 6.200 |
| E | 10.000 | 10.400 |
| F | 2.166 | 2.366 |
| G | 0.660 | 0.860 |
| H | Φ1.050 | Φ1.350 |
| I | 0.460 | 0.580 |
| J | 2.200 | 2.400 |
| K | 0 | 0.300 |
| L | 0.890 | 2.290 |
| M | 2.730 | 3.080 |
| N | 0.430 | 0.580 |
| O | 4.20 | 4.95 |
| P | 5.15 | 5.45 |

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