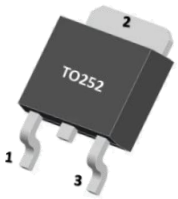
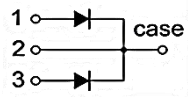
## ■ DESCRIPTION

The MBR2065CS meet the ROHS and Green Product requirement with full function reliability approved.




1. ANODE
2. CATHODE
3. ANODE




## ■ FEATURE

* High Surge Capacity
* For Use In Low Voltage,High Frequency Inverters, Free Wheeling and Polarity Protection Applications.
* Metal Silicon Junction,Majority Carrier Conduction.
* High Current Capacity,Low Forward Voltage Drop.
* Guard Ring for Over Voltage Protection.

## ■ ABSOLUTE MAXIMUM RATINGS(TA=25°C, unless otherwise specified.)

| SYMBOL | PARAMETER | | VALUE | UNIT |
|---|---|---|---|---|
| VRRM | Peak repetitive reverse voltage | | 65 | V |
| VRWM | Working peak reverse voltage | | 65 | V |
| VR | DC blocking voltage | | 65 | V |
| VR(RMS) | RMS reverse voltage | | 45.5 | V |
| IO | Average rectified output current | | 20（10*2） | A |
| IFSM | Non-Repetitive peak forward surge current (8.3ms half sine wave) | | 150*2 | A |
| Tj | Junction temperature | | 150 | °C |
| Tstg | Storage temperature | | -55 ~ +150 | °C |
| RθJA | Thermal Resistance fromJunction to Ambient | TO-252 | 100 | °C/W |
| | | TO-220F | 58 | |
| RθJC | Thermal Resistance From Junction To Case | TO-252 | 5 | °C/W |
| | | TO-220F | 3 | |

Notes:Absolute maximum ratings are those values beyond which the device could be permanently damaged. Absolute maximum ratings are stress ratings only and functional device operation is not implied.

## ■ ELECTRICAL CHARACTERISTICS (TA=25°C, unless otherwise specified)

| PARAMETER | SYMBOL | TEST CONDITIONS | | MIN | TYP | MAX | UNIT |
|---|---|---|---|---|---|---|---|
| Reverse voltage | V(BR) | I R=0.2mA | | 65 | | | V |
| Reverse current | I R | VR=65V | Tj =25℃ | | | 50 | uA |
| | | | Tj =125℃ | | 5.0 | | mA |
| Forward voltage | VF | I F=5A | Tj =25℃ | | | 0.7 | V |
| | | | Tj =125℃ | | 0.54 | | V |
| | | I F=10A | Tj =25℃ | | | 0.85 | V |
| | | | Tj =125℃ | | 0.62 | | V |
| *Pulse test: pulse width ≤300μs, duty cycle≤ 2.0% | | | | | | | |

## ■ TYPICAL CHARACTERISTICS

FIG.1: FORWARD CURRENT DERATING CURVE

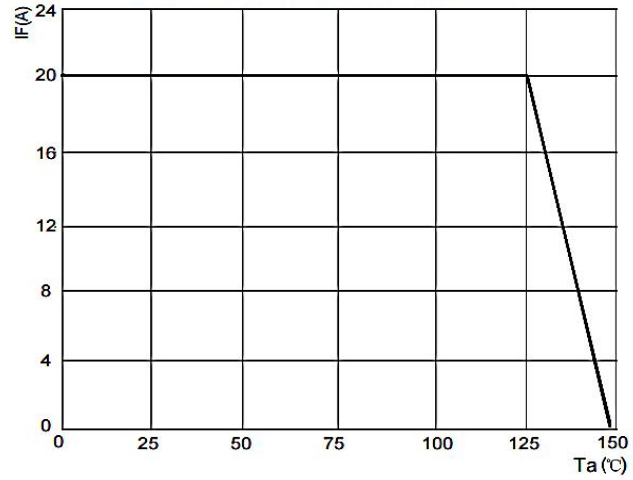



FIG.2: TYPICAL FORWARD CHARACTERISTICS

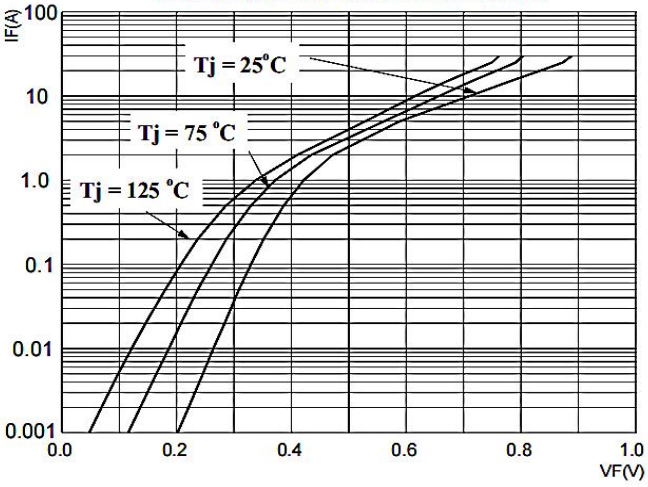



FIG.3: TOTAL CAPACITANCE DERATING CURVE

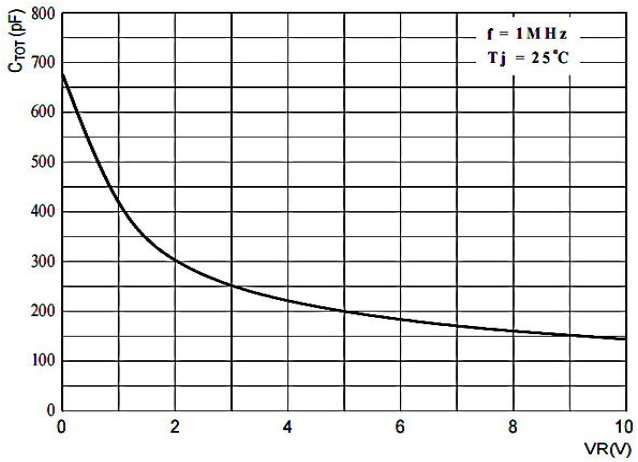
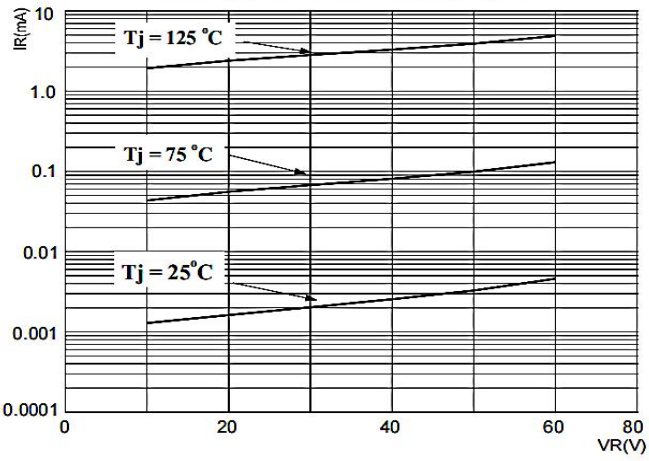
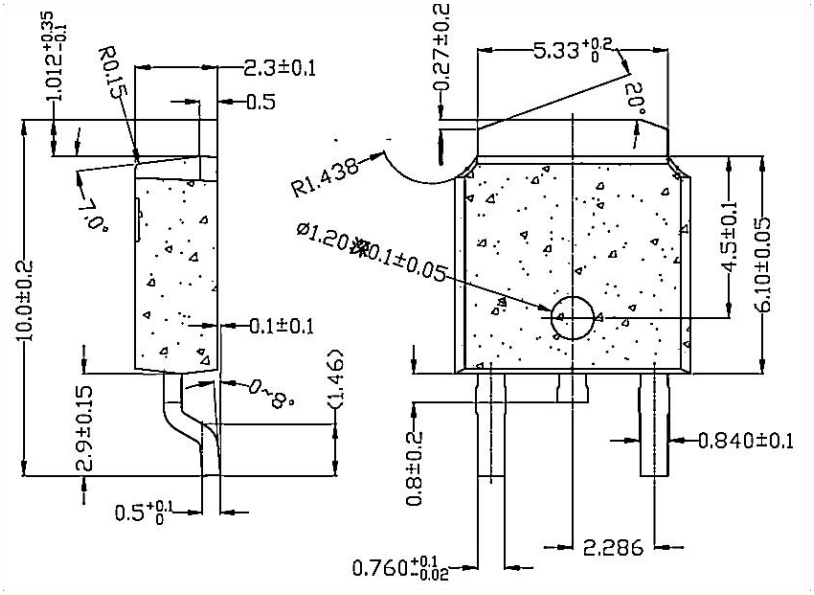
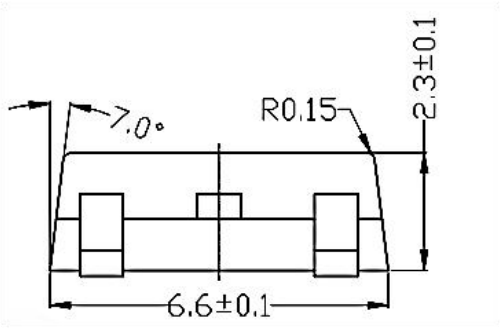



FIG.4: TYPICAL REVERSE CHARACTERISTICS



## ■ TO - 252 Package Outline Dimensions




## ■ TO - 252 Packing Information

| Package version | Reel dimensions Φ×H (mm) | Per Reel (pcs) | Reels per box | Inner box dimensions L×W×H(mm) | Outer box (pcs) | Outer box dimensions L×W×H (mm) |
|---|---|---|---|---|---|---|
| TO-252 | Φ330*20 | 2500 | 2 | 360*340*50 | 25000 | 375*375*280 |