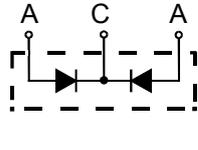
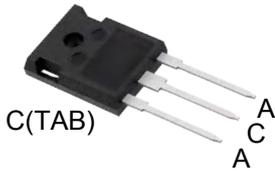


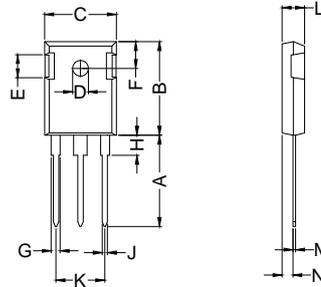
# MBR4030PT thru MBR4045PT

## High T<sub>jm</sub> Low IRRM Schottky Barrier Diodes



A=Anode, C=Cathode, TAB=Cathode

Dimensions TO-247AD



| Dim. | Millimeter |       | Inches |       |
|------|------------|-------|--------|-------|
|      | Min.       | Max.  | Min.   | Max.  |
| A    | 19.81      | 20.32 | 0.780  | 0.800 |
| B    | 20.80      | 21.46 | 0.819  | 0.845 |
| C    | 15.75      | 16.26 | 0.620  | 0.640 |
| ØD   | 3.15       | 3.65  | 0.124  | 0.144 |
| E    | 4.32       | 5.49  | 0.170  | 0.216 |
| F    | 5.40       | 6.30  | 0.213  | 0.248 |
| G    | 1.65       | 2.18  | 0.065  | 0.086 |
| H    | 3.80       | 4.50  | 0.150  | 0.177 |
| J    | 1.00       | 1.40  | 0.039  | 0.055 |
| K    | 10.80      | 11.10 | 0.425  | 0.437 |
| L    | 4.70       | 5.30  | 0.185  | 0.209 |
| M    | 0.40       | 0.80  | 0.016  | 0.031 |
| N    | 1.50       | 2.49  | 0.059  | 0.098 |

|                  | V <sub>RRM</sub><br>V | V <sub>RMS</sub><br>V | V <sub>DC</sub><br>V |
|------------------|-----------------------|-----------------------|----------------------|
| <b>MBR4030PT</b> | 30                    | 21                    | 30                   |
| <b>MBR4035PT</b> | 35                    | 24.5                  | 35                   |
| <b>MBR4040PT</b> | 40                    | 28                    | 40                   |
| <b>MBR4045PT</b> | 45                    | 31.5                  | 45                   |

| Symbol            | Characteristics  | Maximum Ratings              | Unit |
|-------------------|--|------------------------------|------|
| I <sub>(AV)</sub> | Maximum Average Forward Rectified Current @T <sub>c</sub> =125°C   | 40                           | A    |
| I <sub>FSM</sub>  | Peak Forward Surge Current 8.3ms Single Half-Sine-Wave Superimposed On Rated Load (JEDEC METHOD)   | 400                          | A    |
| dv/dt             | Voltage Rate Of Change (Rated V <sub>R</sub> )   | 10000                        | V/us |
| V <sub>F</sub>    | Maximum Forward Voltage (Note 1)<br>I <sub>F</sub> =20A @T <sub>J</sub> =25°C<br>I <sub>F</sub> =20A @T <sub>J</sub> =125°C<br>I <sub>F</sub> =40A @T <sub>J</sub> =25°C<br>I <sub>F</sub> =40A @T <sub>J</sub> =125°C | 0.70<br>0.60<br>0.80<br>0.75 | V    |
| I <sub>R</sub>    | Maximum DC Reverse Current At Rated DC Blocking Voltage<br>@T <sub>J</sub> =25°C<br>@T <sub>J</sub> =125°C   | 1.0<br>100                   | mA   |
| R <sub>θJC</sub>  | Typical Thermal Resistance (Note 2)  | 1.4                          | °C/W |
| C <sub>J</sub>    | Typical Junction Capacitance Per Element (Note 3)  | 700                          | pF   |
| T <sub>J</sub>    | Operating Temperature Range  | -55 to +150                  | °C   |
| T <sub>STG</sub>  | Storage Temperature Range  | -55 to +175                  | °C   |

NOTES: 1. 300us Pulse Width, Duty Cycle 2%.  
2. Thermal Resistance Junction To Case.  
3. Measured At 1.0MHz And Applied Reverse Voltage Of 4.0V DC.

### FEATURES

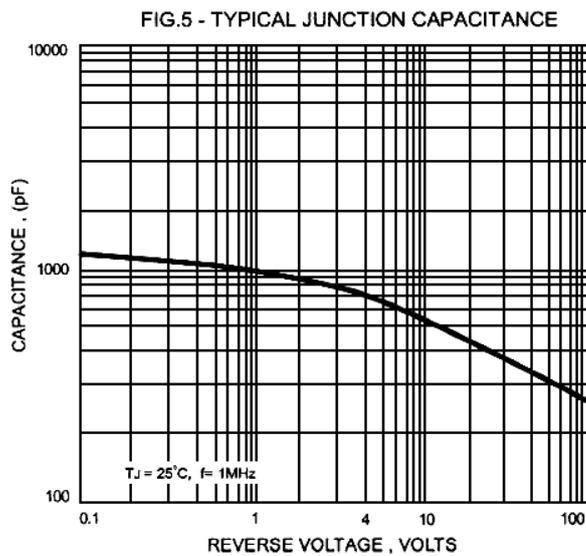
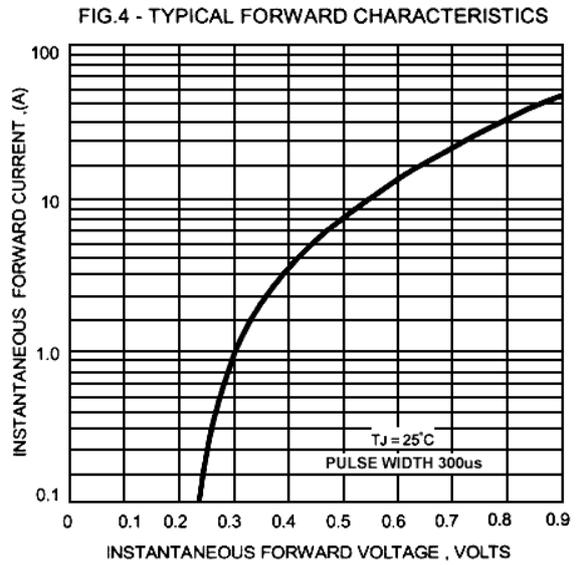
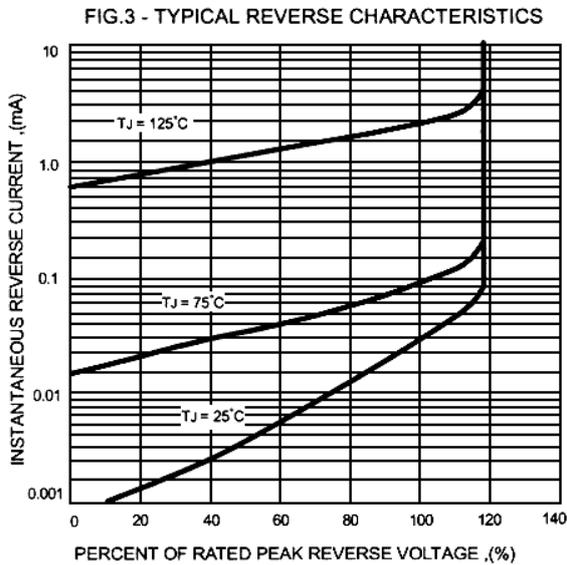
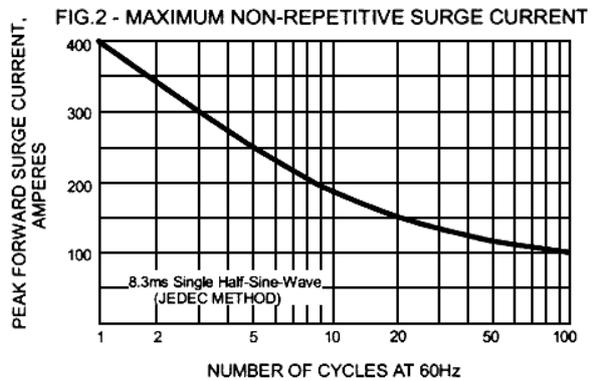
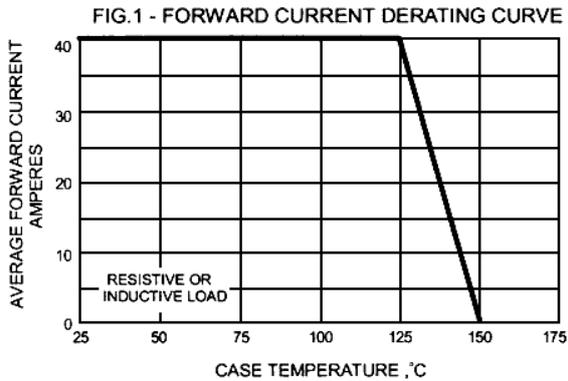
- \* Metal of silicon rectifier, majority carrier conducton
- \* Guard ring for transient protection
- \* Low power loss, high efficiency
- \* High current capability, low V<sub>F</sub>
- \* High surge capacity
- \* For use in low voltage, high frequency inverters, free whelling, and polarity protection applications
- \* Ü[ PÜ& { ] |æ &

### MECHANICAL DATA

- \* Case: TO-247AD molded plastic
- \* Polarity: As marked on the body
- \* Weight: 6 grams
- \* Mounting position: Any

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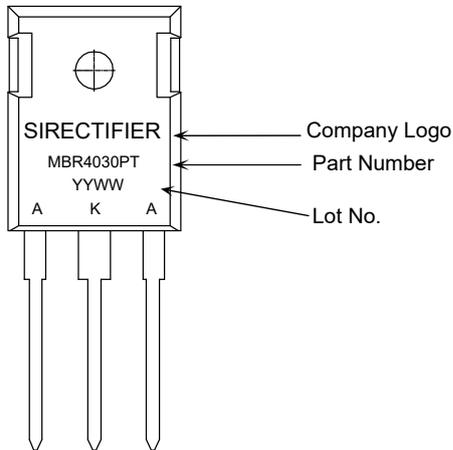
## High T<sub>jm</sub> Low IRRM Schottky Barrier Diodes



# MBR4030PT thru MBR4045PT

High Tjm Low IRRM Schottky Barrier Diodes

## MARKING



## ORDERING INFORMATION

| Part Number | Package  | Shipping     | Marking Code |
|-------------|----------|--------------|--------------|
| MBR4030PT   | TO-247AD | 30pcs / Tube | MBR4030PT    |
| MBR4035PT   | TO-247AD | 30pcs / Tube | MBR4035PT    |
| MBR4040PT   | TO-247AD | 30pcs / Tube | MBR4040PT    |
| MBR4045PT   | TO-247AD | 30pcs / Tube | MBR4045PT    |