

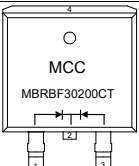
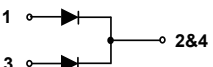
## Features

- Halogen Free. "Green" Device (Note 1)
- Lead Free Finish/RoHS Compliant(Note 2) ("P" Suffix Designates Compliant. See Ordering Information)
- Epoxy Meets UL 94 V-0 Flammability Rating
- Moisture Sensitivity Level 1
- Very Low Profile and Typical Height of 1.7 mm
- High Junction Temperature Capability
- Low Leakage Current

## Maximum Ratings @ 25°C (Unless Otherwise Specified)

| Parameter                                                              | Symbol      | Value    | Unit             |
|------------------------------------------------------------------------|-------------|----------|------------------|
| Peak Repetitive Reverse Voltage                                        | $V_{RRM}$   | 200      | V                |
| Working Peak Reverse Voltage                                           | $V_{RWM}$   |          |                  |
| DC Blocking Voltage                                                    | $V_R$       |          |                  |
| RMS Reverse Voltage                                                    | $V_{RMS}$   | 140      | V                |
| Average Rectified Forward Current                                      | $I_{F(AV)}$ | 15<br>30 | A                |
| Per Diode<br>Per Device                                                |             |          |                  |
| Non-Repetitive Peak Surge Current<br>(Per Diode) @8.3ms Half Sine Wave | $I_{FSM}$   | 260      | A                |
| Current Squared Time(Per Diode)<br>@ 1ms≤t≤8.3ms                       | $I^2t$      | 280      | A <sup>2</sup> s |

## Internal Structure

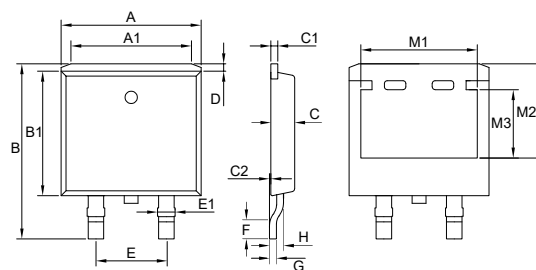
| Pin | Description | Simplified Outline                                                                  | Graphic Symbol                                                                      |
|-----|-------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
| 2&4 | Cathode     |  |  |
| 1&3 | Anode       |                                                                                     |                                                                                     |

Note :

- 1.Halogen free "Green" products are defined as those which contain <900ppm bromine, <900ppm chlorine (<1500ppm total Br + Cl) and <1000ppm antimony compounds.
- 2.High temperature solder Exemption applied, see EU directive annex 7a.

# 30 Amp Schottky Barrier Rectifiers 200 Volts

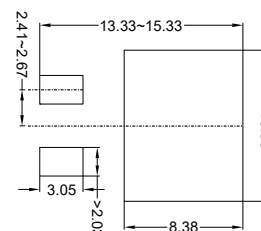
## TO-263AC



### DIMENSIONS

| DIM | INCHES |       | MM    |       | NOTE |
|-----|--------|-------|-------|-------|------|
|     | MIN    | MAX   | MIN   | MAX   |      |
| A   | 0.388  | 0.407 | 9.85  | 10.35 |      |
| A1  | 0.323  | 0.339 | 8.20  | 8.60  |      |
| B   | 0.467  | 0.490 | 11.85 | 12.45 |      |
| B1  | 0.346  | 0.361 | 8.78  | 9.18  |      |
| C   | 0.062  | 0.074 | 1.57  | 1.87  |      |
| C1  | 0.014  | 0.026 | 0.35  | 0.65  |      |
| C2  | 0.000  | 0.008 | 0.00  | 0.20  |      |
| D   | 0.015  | 0.027 | 0.39  | 0.69  |      |
| E   | 0.196  | 0.204 | 4.98  | 5.18  |      |
| E1  | 0.044  | 0.056 | 1.12  | 1.42  |      |
| F   | 0.051  | 0.059 | 1.30  | 1.50  |      |
| G   | 0.014  | 0.026 | 0.35  | 0.65  |      |
| H   | 0.033  | 0.049 | 0.85  | 1.25  |      |
| M1  | 0.327  | 0.343 | 8.30  | 8.70  |      |
| M2  | 0.264  | 0.280 | 6.70  | 7.10  |      |
| M3  | 0.185  | 0.201 | 4.70  | 5.10  |      |

### Suggested Solder Pad Layout(mm)



## Thermal characteristics

| Symbol        | Parameter                                   | Conditions | Min | Typ | Max | Unit |
|---------------|---------------------------------------------|------------|-----|-----|-----|------|
| $T_J$         | Operating Junction Temperature Range        |            | -55 |     | 175 | °C   |
| $T_{stg}$     | Storage Temperature Range                   |            | -55 |     | 175 | °C   |
| $R_{th(J-C)}$ | Thermal Resistance from Junction to Case    |            |     | 2   |     | °C/W |
| $R_{th(J-A)}$ | Thermal Resistance from Junction to Ambient |            |     | 40  |     | °C/W |

## Electrical Characteristics @ 25°C Unless Otherwise Specified

| Parameter            | Symbol | Test Conditions                   | Min | Typ  | Max  | Unit |
|----------------------|--------|-----------------------------------|-----|------|------|------|
| Forward Voltage      | $V_F$  | $I_F=5A; T_J=25^{\circ}C$         |     | 0.74 |      | V    |
|                      |        | $I_F=5A; T_J=125^{\circ}C$        |     | 0.58 | 0.65 |      |
|                      |        | $I_F=10A; T_J=25^{\circ}C$        |     | 0.82 |      |      |
|                      |        | $I_F=10A; T_J=125^{\circ}C$       |     | 0.66 | 0.75 |      |
|                      |        | $I_F=15A; T_J=25^{\circ}C$        |     | 0.88 | 0.93 |      |
|                      |        | $I_F=15A; T_J=125^{\circ}C$       |     | 0.71 | 0.80 |      |
| Reverse Current      | $I_R$  | $V_R=200V; T_J=25^{\circ}C$       |     |      | 0.01 | mA   |
|                      |        | $V_R=200V; T_J=125^{\circ}C$      |     |      | 10   |      |
| Junction Capacitance | $C_J$  | $V_R=4V; f=1MHz; T_J=25^{\circ}C$ |     | 670  |      | pF   |

## Curve Characteristics

Fig. 1 - Forward Current Derating Curve

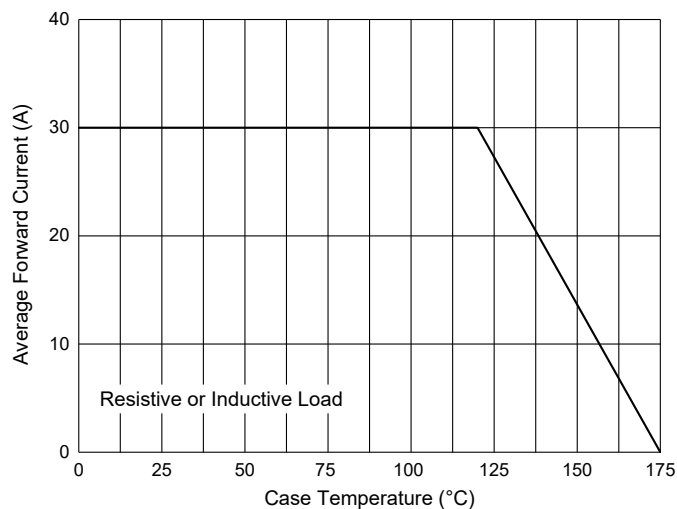


Fig. 2 - Maximum Non-Repetitive Peak Forward Surge Current

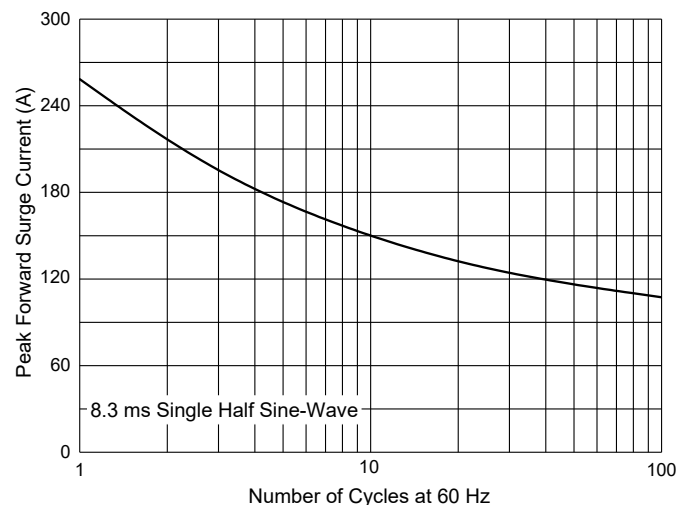


Fig. 3 - Typical Forward Characteristics

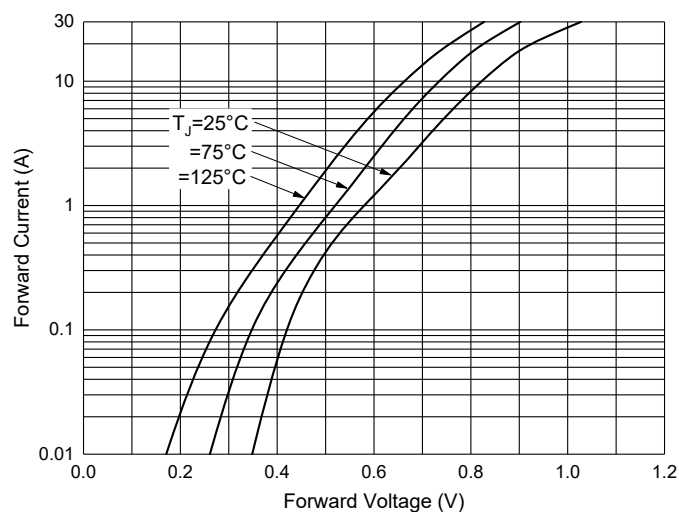


Fig. 4 - Typical Reverse Leakage Characteristics

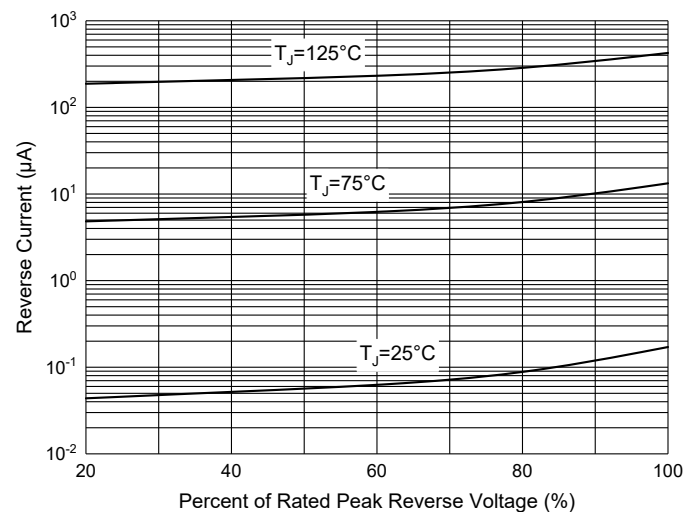
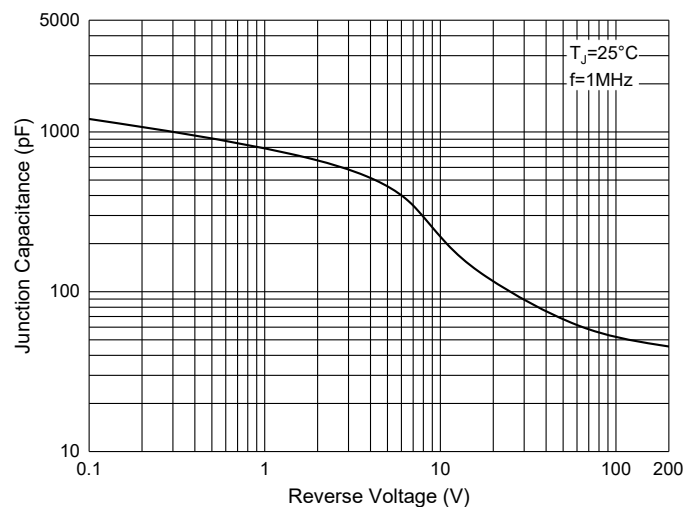


Fig. 5 - Typical Capacitance Characteristics



## Ordering Information

| Device         | Packing                 |
|----------------|-------------------------|
| Part Number-TP | Tape&Reel: 1500pcs/Reel |

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