

### Features

- High Current Capability and High Efficiency
- Low Forward Voltage Drop
- Halogen Free Available Upon Request By Adding Suffix "-HF"
- Lead Free Finish/RoHS Compliant(Note 1) ("P" Suffix Designates RoHS Compliant. See Ordering Information)
- Epoxy Meets UL 94 V-0 Flammability Rating
- Moisture Sensitivity Level 1

### Maximum Ratings

- Operating Junction Temperature Range: -55°C to +150°C
- Storage Temperature Range: -55°C to +150°C
- Maximum Thermal Resistance(Per Leg) : 2.0°C/W Junction to Case

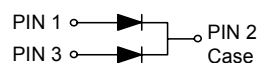
| MCC Part Number | Device Marking | Maximum Recurrent Peak Reverse Voltage | Maximum RMS Voltage | Maximum DC Blocking Voltage |
|-----------------|----------------|--|---------------------|-----------------------------|
| MBRBL40U60CT    | MBRBL40U60CT   | 60V                                    | 42V                 | 60V                         |

### Electrical Characteristics @ 25°C Unless Otherwise Specified

|                                       |             |                               |   |
|---------------------------------------|-------------|-------------------------------|---|
| Average Forward Current               | $I_{F(AV)}$ | 40A                           | $T_C=120^\circ\text{C}$   |
| Peak Forward Surge Current(Per Leg)   | $I_{FSM}$   | 300A                          | 8.3ms,Half Sine   |
| Maximum Instantaneous Forward Voltage | $V_F$       | 0.56V<br>0.53V(Typ.)<br>0.54V | $I_F=20\text{A}; T_A=25^\circ\text{C}$<br>$I_F=20\text{A}; T_A=125^\circ\text{C}$ |
| Maximum Peak Reverse Current          | $I_R$       | 0.2mA<br>15mA                 | $T_A=25^\circ\text{C};$<br>$T_A=100^\circ\text{C}$                                |

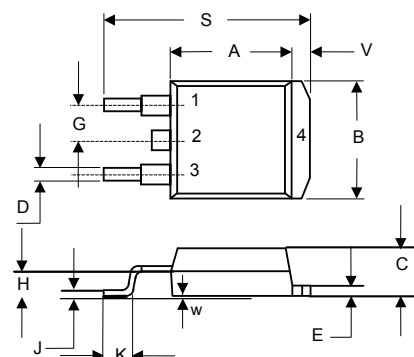
Note :1. High Temperature Solder Exemption Applied, See EU Directive Annex 7a.

### Internal Structure



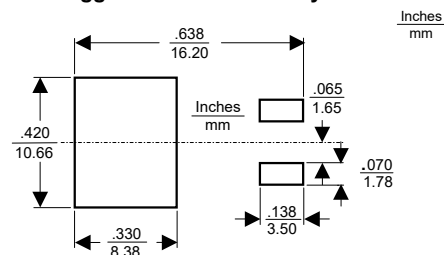
# 40 Amp Low VF Schottky Barrier Rectifier 60 Volts

### D<sup>2</sup>-PAK(TO-263)



| DIM | DIMENSIONS |       |       |       | NOTE |
|-----|------------|-------|-------|-------|------|
|     | INCHES     |       | MM    |       |      |
|     | MIN        | MAX   | MIN   | MAX   |      |
| A   | 0.331      | 0.370 | 8.40  | 9.40  |      |
| B   | 0.378      | 0.417 | 9.60  | 10.60 |      |
| C   | 0.165      | 0.189 | 4.20  | 4.80  |      |
| D   | 0.027      | 0.037 | 0.68  | 0.94  |      |
| E   | 0.045      | 0.055 | 1.14  | 1.40  |      |
| G   | 0.010      |       | 2.54  |       | TYP. |
| H   | 0.096      | 0.134 | 2.43  | 3.40  |      |
| J   | 0.011      | 0.025 | 0.28  | 0.64  |      |
| K   | 0.071      | 0.131 | 1.80  | 3.32  |      |
| S   | 0.575      | 0.625 | 14.60 | 15.87 |      |
| V   | 0.042      | 0.058 | 1.07  | 1.47  |      |
| W   | 0.000      | 0.010 | 0.00  | 0.25  |      |

### Suggested Solder Pad Layout



**Curve Characteristics**

Fig. 1 - Forward Current Derating Curve

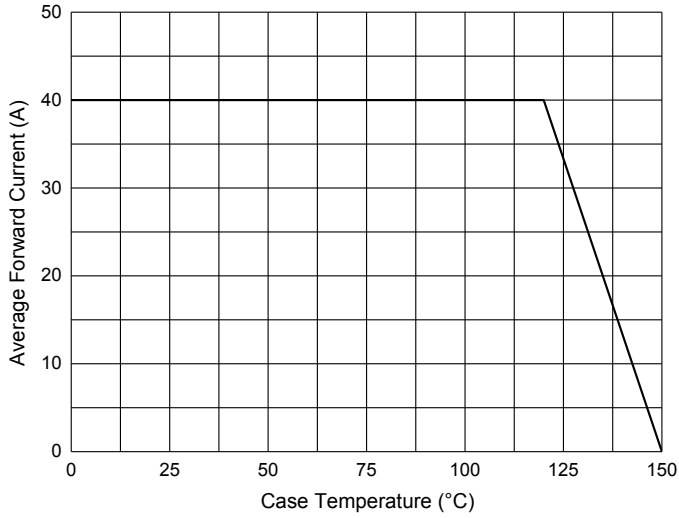


Fig. 2 - Typical Instantaneous Forward Characteristics

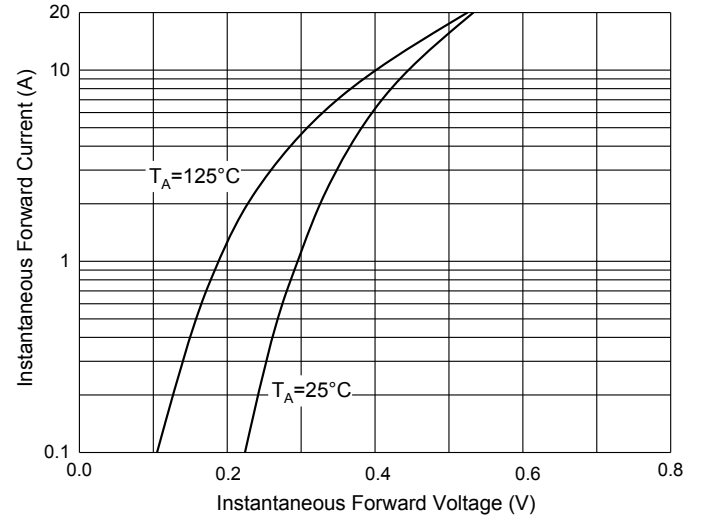
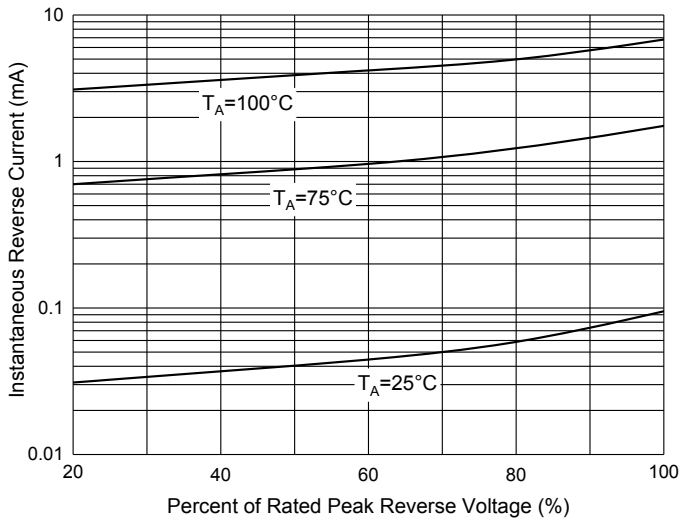


Fig. 3 - Typical Reverse Leakage Characteristics



## Ordering Information

| Device         | Packing                |
|----------------|------------------------|
| Part Number-TP | Tape&Reel: 800pcs/Reel |

Note : Adding "-HF" Suffix For Halogen Free, eg. Part Number-TP-HF

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