

MBR1030CT-MBR1060CT

10 AMP SCHOTTKY RECTIFIERS

FEATURES

- Available as "HR" (high reliability) screened per MIL-PRF-19500, JANTX level. Add "HR" suffix to base part number.
- Available as non-RoHS (Sn/Pb plating), standard, and as RoHS by adding "-PBF" suffix.

MAXIMUM RATINGS

| Rating | MBR1030CT | MBR1035CT | MBR1040CT | MBR1045CT | MBR1050CT | MBR1060CT | Unit |
|--|-------------|-----------|-----------|-----------|-----------|-----------|------|
| Maximum recurrent peak reverse voltage | 30 | 35 | 40 | 45 | 50 | 60 | V |
| Maximum RMS voltage | 21 | 24.5 | 28 | 31.5 | 35 | 42 | V |
| Maximum DC blocking voltage | 30 | 35 | 40 | 45 | 50 | 60 | V |
| Operating temperature range | -55 to +150 | | | | | | °C |
| Storage temperature range | -55 to +175 | | | | | | °C |

ELECTRICAL CHARACTERISTICS (T_A = 25°C unless otherwise specified)

| Parameter | Symbol | Value | Test Condition |
|---|--------------------|---------------|---|
| Average forward current | I _{F(AV)} | 10A | T _C = 105°C |
| Peak forward surge current | I _{FSM} | 125A | 8.3ms, half sine |
| Maximum forward voltage drop per element | V _F | 0.70V | I _{FM} = 5A |
| MBR1030CT-MBR1045CT | | 0.80V | T _J = 25°C |
| MBR1050CT-MBR1060CT | | 0.57V | I _{FM} = 5A |
| MBR1030CT-MBR1045CT | | 0.65V | T _J = 125°C |
| Maximum DC reverse current at rated DC blocking voltage | I _R | 0.1mA 15mA | T _J = 25°C T _J = 125°C |
| Typical junction capacitance | C _J | 170pF | Measured at 1.0MHz, V _R = 4.0V |
| MBR1030CT-MBR1045CT | | 220pF | |
| MBR1050CT-MBR1060CT | | | |

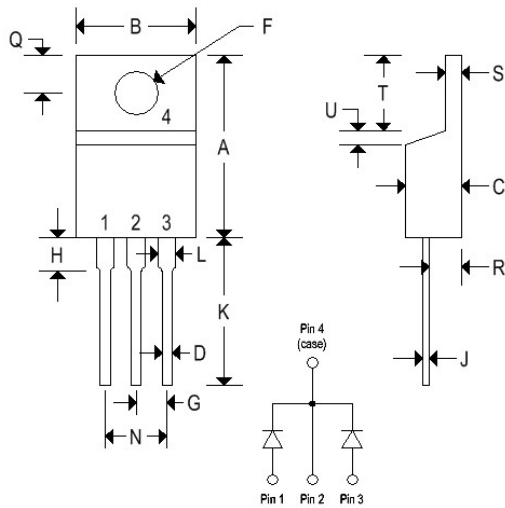
Pulse test : Pulse width 300µsec, duty cycle 2%.

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MECHANICAL CHARACTERISTICS

| | |
|---------|---------------|
| Case | TO-220AB |
| Marking | Alpha-numeric |
| Pin out | Cathode band |



| | TO-220AB | | | |
|---|----------|-------|-------------|--------|
| | Inches | | Millimeters | |
| | Min | Max | Min | Max |
| A | 0.570 | 0.620 | 14.480 | 15.750 |
| B | 0.380 | 0.405 | 9.660 | 10.280 |
| C | 0.160 | 0.190 | 4.070 | 4.820 |
| D | 0.025 | 0.035 | 0.640 | 0.880 |
| F | 0.142 | 0.147 | 3.610 | 3.730 |
| G | 0.095 | 0.105 | 2.420 | 2.660 |
| H | 0.110 | 0.155 | 2.800 | 3.930 |
| J | 0.018 | 0.025 | 0.460 | 0.640 |
| K | 0.500 | 0.562 | 12.700 | 14.270 |
| L | 0.045 | 0.060 | 1.150 | 1.520 |
| N | 0.190 | 0.210 | 4.830 | 5.330 |
| Q | 0.100 | 0.120 | 2.540 | 3.040 |
| R | 0.080 | 0.110 | 2.040 | 2.790 |
| S | 0.045 | 0.055 | 1.150 | 1.390 |
| T | 0.235 | 0.255 | 5.970 | 6.470 |
| U | - | 0.050 | - | 1.270 |

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