



Micro Commercial Components
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3KP5.0(C)(A) THRU 3KP170(C)(A)

**3000Watts Transient
 Voltage Suppressor
 5.0 to 170 Volts**

Features

- 3000 Watts Peak Power
- Low Inductance
- Unidirectional and Bidirectional unit
- Voltage Range: 5.0 to 170 Volts.

Mechanical Data

- Case: Molded Plastic
- Polarity: Color band denotes cathode.
- Terminals: Axial leads, solderable per MIL-STD-202, Methode 208

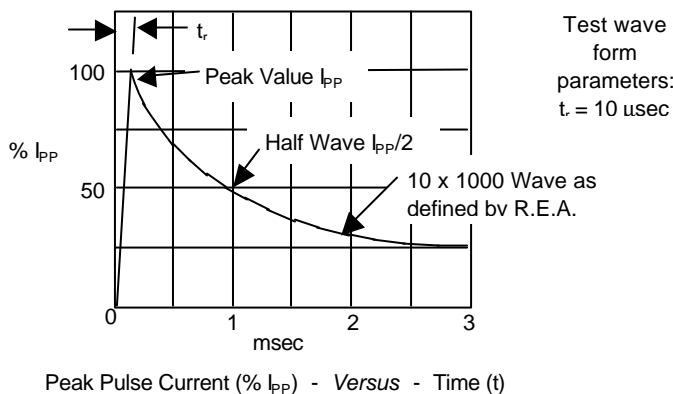
Maximum Ratings

- Operating Temperature: -50°C to +150°C
- Storage Temperature: -50°C to +150°C
- 3000 watts of Peak Power Dissipation (10X1000 us)
- Forward Surge Current: 200 Amps, 1/120 sec @ 25°C
- $T_{clamping}$ (0 volts to $V_{(BR)}$ min): less than 1×10^{-12} seconds

3KP

| DIMENSIONS | | | | | |
|------------|--------|------|-------|------|------|
| DIM | INCHES | | MM | | NOTE |
| | MIN | MAX | MIN | MAX | |
| A | .365 | .375 | 9.27 | 9.53 | |
| B | .240 | .250 | 6.10 | 6.35 | |
| C | .049 | .050 | 1.25 | 1.27 | |
| D | 1.100 | --- | 27.94 | --- | |

Figure 1 - Pulse Waveform



3KP Series



| MCC PART NUMBER | REVERSE STAND-OFF VOLTAGE V_{WM} (VOLTS) | BREAKDOWN VOLTAGE $V_{(BR)} @ I_T$ (VOLTS) | | | MAXIMUM CLAMPING VOLTAGE @ I_{PP} (VOLTS) | PEAK PULSE CURRENT I_{PP} (AMPS) | MAXIMUM REVERSE LEAKAGE @ V_{WM} I_b (μA) |
|-----------------|--|--|------|------------|---|------------------------------------|--|
| | | MIN | MAX | I_T (mA) | | | |
| 3KP5.0 | 5.0 | 6.40 | 7.30 | 10 | 9.6 | 312.5 | 1000 |
| 3KP5.0A | 5.0 | 6.40 | 7.00 | 10 | 9.2 | 326.0 | 1000 |
| 3KP6.0 | 6.0 | 6.67 | 8.15 | 10 | 11.4 | 263.2 | 1000 |
| 3KP6.0A | 6.0 | 6.67 | 7.37 | 10 | 10.3 | 291.3 | 1000 |
| 3KP6.5 | 6.5 | 7.22 | 8.82 | 10 | 12.3 | 243.9 | 500 |
| 3KP6.5A | 6.5 | 7.22 | 7.98 | 10 | 11.2 | 267.9 | 500 |
| 3KP7.0 | 7.0 | 7.78 | 9.51 | 10 | 13.3 | 225.6 | 200 |
| 3KP7.0A | 7.0 | 7.78 | 8.60 | 10 | 12.0 | 250.0 | 200 |
| 3KP7.5 | 7.5 | 8.33 | 10.2 | 1 | 14.3 | 209.8 | 100 |
| 3KP7.5A | 7.5 | 8.33 | 9.21 | 1 | 12.9 | 232.6 | 100 |
| 3KP8.0 | 8.0 | 8.89 | 10.9 | 1 | 15.0 | 200.0 | 50 |
| 3KP8.0A | 8.0 | 8.89 | 9.83 | 1 | 13.6 | 220.6 | 50 |
| 3KP8.5 | 8.5 | 9.44 | 11.5 | 1 | 15.9 | 188.6 | 25 |
| 3KP8.5A | 8.5 | 9.44 | 10.4 | 1 | 14.4 | 208.4 | 25 |
| 3KP9.0 | 9.0 | 10.0 | 12.2 | 1 | 16.9 | 177.4 | 10 |
| 3KP9.0A | 9.0 | 10.0 | 11.1 | 1 | 15.4 | 194.8 | 10 |
| 3KP10 | 10 | 11.1 | 13.6 | 1 | 18.8 | 159.6 | 5 |
| 3KP10A | 10 | 11.1 | 12.3 | 1 | 17.0 | 176.4 | 5 |
| 3KP11 | 11 | 12.2 | 14.9 | 1 | 20.1 | 149.2 | 5 |
| 3KP11A | 11 | 12.2 | 13.5 | 1 | 18.2 | 164.8 | 5 |
| 3KP12 | 12 | 13.3 | 16.3 | 1 | 22.0 | 136.4 | 5 |
| 3KP12A | 12 | 13.3 | 14.7 | 1 | 19.9 | 150.6 | 5 |
| 3KP13 | 13 | 14.4 | 17.6 | 1 | 23.8 | 126.0 | 5 |
| 3KP13A | 13 | 14.4 | 15.9 | 1 | 21.5 | 139.4 | 5 |
| 3KP14 | 14 | 15.6 | 19.1 | 1 | 25.8 | 116.2 | 5 |
| 3KP14A | 14 | 15.6 | 17.2 | 1 | 23.2 | 129.4 | 5 |
| 3KP15 | 15 | 16.7 | 20.4 | 1 | 26.9 | 111.6 | 5 |
| 3KP15A | 15 | 16.7 | 18.5 | 1 | 24.4 | 123.0 | 5 |
| 3KP16 | 16 | 17.8 | 21.8 | 1 | 28.8 | 104.2 | 5 |
| 3KP16A | 16 | 17.8 | 19.7 | 1 | 26.0 | 115.4 | 5 |
| 3KP17 | 17 | 18.9 | 23.1 | 1 | 30.5 | 98.4 | 5 |
| 3KP17A | 17 | 18.9 | 20.9 | 1 | 27.6 | 106.6 | 5 |
| 3KP18 | 18 | 20.0 | 24.4 | 1 | 32.2 | 93.2 | 5 |
| 3KP18A | 18 | 20.0 | 22.1 | 1 | 29.2 | 102.8 | 5 |
| 3KP20 | 20 | 22.2 | 27.1 | 1 | 35.8 | 83.8 | 5 |
| 3KP20A | 20 | 22.2 | 24.5 | 1 | 32.4 | 92.6 | 5 |
| 3KP22 | 22 | 24.4 | 29.8 | 1 | 39.4 | 76.2 | 5 |
| 3KP22A | 22 | 24.4 | 26.9 | 1 | 35.5 | 84.4 | 5 |
| 3KP24 | 24 | 26.7 | 32.6 | 1 | 43.0 | 69.8 | 5 |
| 3KP24A | 24 | 26.7 | 29.5 | 1 | 38.9 | 77.2 | 5 |
| 3KP26 | 26 | 28.9 | 35.3 | 1 | 46.6 | 64.4 | 5 |
| 3KP26A | 26 | 28.9 | 31.9 | 1 | 42.1 | 71.2 | 5 |
| 3KP28 | 28 | 31.1 | 38.0 | 1 | 50.0 | 60.0 | 5 |
| 3KP28A | 28 | 31.1 | 34.4 | 1 | 45.4 | 66.0 | 5 |
| 3KP30 | 30 | 33.3 | 40.7 | 1 | 53.5 | 56.0 | 5 |
| 3KP30A | 30 | 33.3 | 36.8 | 1 | 48.4 | 62.0 | 5 |
| 3KP33 | 33 | 36.7 | 44.9 | 1 | 59.0 | 50.4 | 5 |
| 3KP33A | 33 | 36.7 | 40.6 | 1 | 53.3 | 56.2 | 5 |
| 3KP36 | 36 | 40.0 | 48.9 | 1 | 64.3 | 46.6 | 5 |
| 3KP36A | 36 | 40.0 | 44.2 | 1 | 58.1 | 51.6 | 5 |
| 3KP40 | 40 | 44.4 | 54.3 | 1 | 71.4 | 42.0 | 5 |
| 3KP40A | 40 | 44.4 | 49.1 | 1 | 64.5 | 46.4 | 5 |
| 3KP43 | 43 | 47.8 | 58.4 | 1 | 76.7 | 39.2 | 5 |
| 3KP43A | 43 | 47.8 | 52.8 | 1 | 69.4 | 43.2 | 5 |
| 3KP45 | 45 | 50.0 | 61.1 | 1 | 80.3 | 37.4 | 5 |
| 3KP45A | 45 | 50.0 | 55.3 | 1 | 72.7 | 41.2 | 5 |
| 3KP48 | 48 | 53.3 | 65.1 | 1 | 85.5 | 35.0 | 5 |

3KP Series



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|-----------------|--|--|------|------------|---|------------------------------------|--|
| | | MIN | MAX | I_T (mA) | | | |
| 3KP48A | 48 | 53.3 | 58.9 | 1 | 77.4 | 38.8 | 5 |
| 3KP51 | 51 | 56.7 | 69.3 | 1 | 91.1 | 37.0 | 5 |
| 3KP51A | 51 | 56.7 | 62.7 | 1 | 82.4 | 36.4 | 5 |
| 3KP54 | 54 | 60.0 | 73.3 | 1 | 96.3 | 31.2 | 5 |
| 3KP54A | 54 | 60.0 | 66.3 | 1 | 87.1 | 34.4 | 5 |
| 3KP58 | 58 | 64.4 | 78.7 | 1 | 103 | 39.2 | 5 |
| 3KP58A | 58 | 64.4 | 71.2 | 1 | 93.6 | 32.0 | 5 |
| 3KP60 | 60 | 66.7 | 81.5 | 1 | 107 | 28.0 | 5 |
| 3KP60A | 60 | 66.7 | 73.7 | 1 | 96.8 | 31.0 | 5 |
| 3KP64 | 64 | 71.1 | 86.9 | 1 | 114 | 26.4 | 5 |
| 3KP64A | 64 | 71.1 | 78.6 | 1 | 103 | 29.2 | 5 |
| 3KP70 | 70 | 77.8 | 95.1 | 1 | 125 | 24.0 | 5 |
| 3KP70A | 70 | 77.8 | 86.0 | 1 | 113 | 26.6 | 5 |
| 3KP75 | 75 | 83.3 | 102 | 1 | 134 | 22.4 | 5 |
| 3KP75A | 75 | 83.3 | 92.1 | 1 | 121 | 24.8 | 5 |
| 3KP78 | 78 | 86.7 | 106 | 1 | 139 | 21.6 | 5 |
| 3KP78A | 78 | 86.7 | 95.8 | 1 | 126 | 22.8 | 5 |
| 3KP85 | 85 | 94.4 | 115 | 1 | 151 | 19.8 | 5 |
| 3KP85A | 85 | 94.4 | 104 | 1 | 137 | 20.8 | 5 |
| 3KP90 | 90 | 100 | 122 | 1 | 160 | 18.8 | 5 |
| 3KP90A | 90 | 100 | 111 | 1 | 146 | 20.6 | 5 |
| 3KP100 | 100 | 111 | 136 | 1 | 179 | 16.8 | 5 |
| 3KP100A | 100 | 111 | 123 | 1 | 162 | 18.6 | 5 |
| 3KP110 | 110 | 122 | 149 | 1 | 196 | 15.4 | 5 |
| 3KP110A | 110 | 122 | 135 | 1 | 177 | 16.8 | 5 |
| 3KP120 | 120 | 133 | 163 | 1 | 214 | 14.0 | 5 |
| 3KP120A | 120 | 133 | 147 | 1 | 193 | 15.6 | 5 |
| 3KP130 | 130 | 144 | 176 | 1 | 231 | 13.0 | 5 |
| 3KP130A | 130 | 144 | 159 | 1 | 209 | 14.4 | 5 |
| 3KP150 | 150 | 167 | 204 | 1 | 268 | 11.2 | 5 |
| 3KP150A | 150 | 167 | 185 | 1 | 243 | 12.4 | 5 |
| 3KP160 | 160 | 178 | 218 | 1 | 287 | 10.4 | 5 |
| 3KP160A | 160 | 178 | 197 | 1 | 259 | 11.6 | 5 |
| 3KP170 | 170 | 189 | 231 | 1 | 304 | 9.8 | 5 |
| 3KP170A | 170 | 189 | 209 | 1 | 275 | 11.0 | 5 |

Figure 2 - Derating Curve

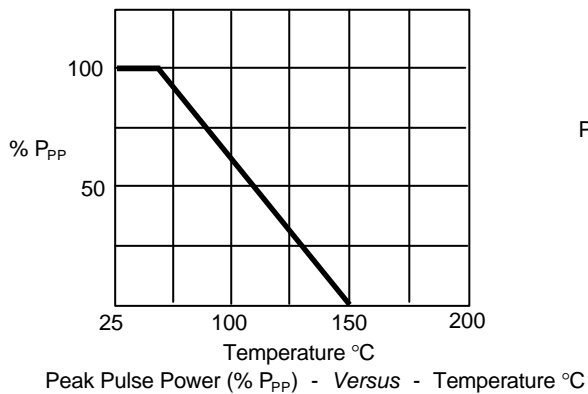
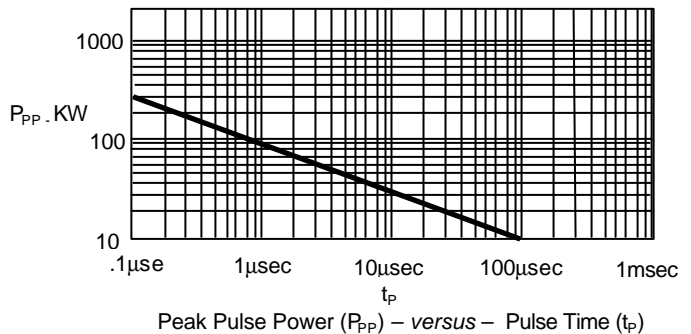


Figure 3



3KP Series



ORDER INFORMATION:

P/N: 3KPXXX-*

* ----- B (Bulk Packaging)

* ----- T (Tape and Reel Packaging)

For Example:

3KP28A-T means MCC P/N is 3KP28A, tape and reel package.