



Micro Commercial Components



Micro Commercial Components
20736 Marilla Street Chatsworth
CA 91311
Phone: (818) 701-4933
Fax: (818) 701-4939

30KP28(C)(A) THRU 30KP288(C)(A)

Features

- Lead Free Finish/RoHS Compliant(Note 1) ("P" Suffix designates RoHS Compliant. See ordering information)
- 30000 Watts Peak Pulse Power Capability on 10/1000us waveform
- Glass passivated junction
- Plastic package Devices and Low incremental surge resistance
- High temperature soldering guaranteed
- Fast response time: typically less than 1.0ps from 0 Volts to BV, bidirectional less than 10ns
- UL Recognized File # E331408

30000 Watts Transient Voltage Suppressor 28 to 288 Volt

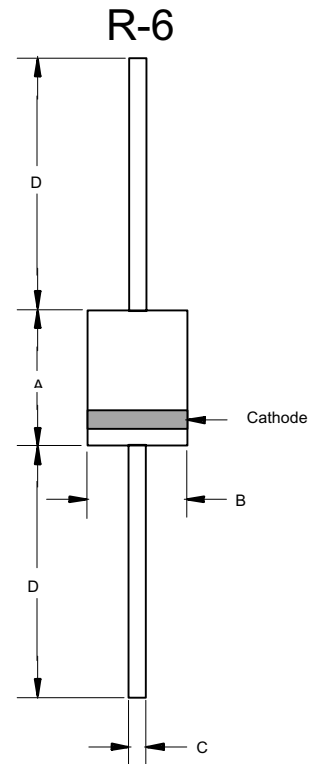
Mechanical Data

- Polarity: Color band denotes positive end (cathode) except Bipolar
- Weight: 0.07 ounce, 2.5 grams
- Terminals: plated Axial leads, solderable per MIL-STD-750, Method 2026
- Epoxy meets UL 94 V-0 flammability rating
- Moisture Sensitivity Level 1
- Halogen free available upon request by adding suffix "-HF"

Maximum Ratings

- Operating Temperature: -55°C to +175°C
- Storage Temperature: -55°C to +175°C
- Minimum 30000 watts of Peak Pulse Power Capability on 10/1000us waveform
- 8 Walts of Steady State Power Dissipation at $R_L=75^\circ\text{C}$, Lead lengths .375", (9.5mm)

Notes:1.High Temperature Solder Exemption Applied, see EU Directive Annex 7.



| DIM | INCHES | | MM | | NOTE |
|-----|--------|------|-------|------|------|
| | MIN | MAX | MIN | MAX | |
| A | .340 | .360 | 8.60 | 9.10 | |
| B | .340 | .360 | 8.60 | 9.10 | |
| C | .048 | .052 | 1.20 | 1.30 | |
| D | 1.000 | --- | 25.40 | --- | |

30KP28(C)(A)~288(C)(A)

| PART NUMBER | | REVERSE STAND- OFF VOLTAGE $V_{RWM}(V)$ | BREAKDOWN VOLTAGE $V_{BR}(V)$ MIN. @ I_T | BREAKDOWN VOLTAGE $V_{BR}(V)$ MAX. @ I_T | TEST CURRENT I_T (mA) | PEAK PULSE CURRENT I_{pp} (A) | REVERSE LEAKAGE @ V_{RWM} $I_R(\mu A)$ | MAXIMUM CLAMPING VOLTAGE@ I_{PP} $V_C(V)$ |
|-------------|-----------|--|--|--|-------------------------------|--|---|--|
| UNI-POLAR | BI-POLAR | | | | | | | |
| 30KP28A | 30KP28CA | 28 | 31.28 | 34.24 | 50 | 606 | 5000 | 50 |
| 30KP30A | 30KP30CA | 30 | 33.51 | 36.69 | 50 | 548.9 | 5000 | 55.2 |
| 30KP33A | 30KP33CA | 33 | 36.9 | 40.4 | 50 | 517.9 | 5000 | 58.5 |
| 30KP36A | 30KP36CA | 36 | 40.2 | 44 | 50 | 490.3 | 5000 | 61.8 |
| 30KP39A | 30KP39CA | 39 | 43.6 | 47.7 | 20 | 450.9 | 2000 | 67.2 |
| 30KP42A | 30KP42CA | 42 | 46.9 | 51.4 | 10 | 420.8 | 1000 | 72 |
| 30KP43A | 30KP43CA | 43 | 48 | 52.6 | 10 | 415.1 | 1000 | 73 |
| 30KP45A | 30KP45CA | 45 | 50.3 | 55 | 5 | 391.5 | 250 | 77.4 |
| 30KP48A | 30KP48CA | 48 | 53.6 | 58.7 | 5 | 371.3 | 150 | 81.6 |
| 30KP51A | 30KP51CA | 51 | 57 | 62.4 | 5 | 350.7 | 50 | 86.4 |
| 30KP54A | 30KP54CA | 54 | 60.3 | 66 | 5 | 331.5 | 20 | 91.4 |
| 30KP58A | 30KP58CA | 58 | 64.8 | 70.9 | 5 | 327.9 | 20 | 92.4 |
| 30KP60A | 30KP60CA | 60 | 67 | 73.4 | 5 | 297.1 | 15 | 102 |
| 30KP64A | 30KP64CA | 64 | 71.5 | 78.3 | 5 | 291.3 | 10 | 104 |
| 30KP66A | 30KP66CA | 66 | 73.7 | 80.7 | 5 | 283.2 | 10 | 107 |
| 30KP70A | 30KP70CA | 70 | 78.2 | 85.6 | 5 | 278 | 10 | 109 |
| 30KP71A | 30KP71CA | 71 | 79.3 | 86.8 | 5 | 271.7 | 10 | 111.5 |
| 30KP72A | 30KP72CA | 72 | 80.4 | 88.1 | 5 | 265.8 | 10 | 114 |
| 30KP75A | 30KP75CA | 75 | 83.8 | 91.7 | 5 | 253.8 | 10 | 119.4 |
| 30KP78A | 30KP78CA | 78 | 87.1 | 95.4 | 5 | 234.9 | 10 | 129 |
| 30KP84A | 30KP84CA | 84 | 93.8 | 102.7 | 5 | 217.7 | 10 | 139.2 |
| 30KP90A | 30KP90CA | 90 | 100.5 | 110.1 | 5 | 207 | 10 | 146.4 |
| 30KP96A | 30KP96CA | 96 | 107.2 | 117.4 | 5 | 194.2 | 10 | 156 |
| 30KP102A | 30KP102CA | 102 | 113.9 | 124.7 | 5 | 183 | 10 | 165.6 |
| 30KP108A | 30KP108CA | 108 | 120.6 | 132.1 | 5 | 172.9 | 10 | 175.2 |
| 30KP120A | 30KP120CA | 120 | 134 | 146.8 | 5 | 155.9 | 10 | 194.4 |
| 30KP132A | 30KP132CA | 132 | 147.4 | 161.4 | 5 | 142.3 | 10 | 213 |
| 30KP144A | 30KP144CA | 144 | 160.8 | 176.1 | 5 | 135.8 | 10 | 223.2 |
| 30KP150A | 30KP150CA | 150 | 167.6 | 183.5 | 5 | 129.8 | 10 | 233.4 |
| 30KP156A | 30KP156CA | 156 | 174.3 | 190.8 | 5 | 123.7 | 10 | 245 |
| 30KP160A | 30KP160CA | 160 | 178.7 | 195.7 | 5 | 120 | 10 | 252.6 |
| 30KP168A | 30KP168CA | 168 | 187.7 | 205.5 | 5 | 111.2 | 10 | 272.4 |
| 30KP170A | 30KP170CA | 170 | 189.9 | 207.9 | 5 | 110.2 | 10 | 275 |
| 30KP180A | 30KP180CA | 180 | 201.1 | 220.1 | 5 | 104.3 | 10 | 290.4 |
| 30KP198A | 30KP198CA | 198 | 221.2 | 242.2 | 5 | 94.7 | 10 | 319.8 |
| 30KP216A | 30KP216CA | 216 | 241.3 | 264.2 | 5 | 86.9 | 10 | 348.6 |
| 30KP240A | 30KP240CA | 240 | 268.1 | 293.5 | 5 | 78.3 | 10 | 387 |
| 30KP258A | 30KP258CA | 258 | 288.2 | 315.5 | 5 | 72.8 | 10 | 416.4 |
| 30KP260A | 30KP260CA | 260 | 290.4 | 318 | 5 | 72.8 | 10 | 416 |
| 30KP270A | 30KP270CA | 270 | 301.6 | 330.2 | 5 | 69.5 | 10 | 436.2 |
| 30KP280A | 30KP280CA | 280 | 312.8 | 342.4 | 5 | 65.3 | 10 | 464 |
| 30KP288A | 30KP288CA | 288 | 321.7 | 352.2 | 5 | 64.5 | 10 | 469.9 |

For bidirectional type having V_{RWM} of 60 volts and less, the IR limit is double.

For parts without A , the VBR is $\pm 10\%$

30KP28(C)(A)~288(C)(A)

Fig. 1 - Pulse Derating Curve



Fig. 2 - Peak Pulse Power vs. Pulse Time





TM

Micro Commercial Components

Ordering Information :

| Device | Packing |
|----------------|-------------------------------|
| Part Number-TP | Tape&Reel: 500pcs/Reel |
| Part Number-AP | Ammo Packing: 450pcs/Ammo Box |
| Part Number-BP | Bulk: 4.8Kpcs/Carton |

Note : Adding "-HF" suffix for halogen free, eg. Part Number-TP-HF

IMPORTANT NOTICE

Micro Commercial Components Corp. reserves the right to make changes without further notice to any product herein to make corrections, modifications , enhancements , improvements , or other changes . **Micro Commercial Components Corp .** does not assume any liability arising out of the application or use of any product described herein; neither does it convey any license under its patent rights ,nor the rights of others . The user of products in such applications shall assume all risks of such use and will agree to hold **Micro Commercial Components Corp .** and all the companies whose products are represented on our website, harmless against all damages.

LIFE SUPPORT

MCC's products are not authorized for use as critical components in life support devices or systems without the express written approval of Micro Commercial Components Corporation.

CUSTOMER AWARENESS

Counterfeiting of semiconductor parts is a growing problem in the industry. Micro Commercial Components (MCC) is taking strong measures to protect ourselves and our customers from the proliferation of counterfeit parts. MCC strongly encourages customers to purchase MCC parts either directly from MCC or from Authorized MCC Distributors who are listed by country on our web page cited below. Products customers buy either from MCC directly or from Authorized MCC Distributors are genuine parts, have full traceability, meet MCC's quality standards for handling and storage. **MCC will not provide any warranty coverage or other assistance for parts bought from Unauthorized Sources.** MCC is committed to combat this global problem and encourage our customers to do their part in stopping this practice by buying direct or from authorized distributors.

www.mccsemi.com