



Micro Commercial Components



Micro Commercial Components  
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# AK1-076C THRU AK15-076C

## Features

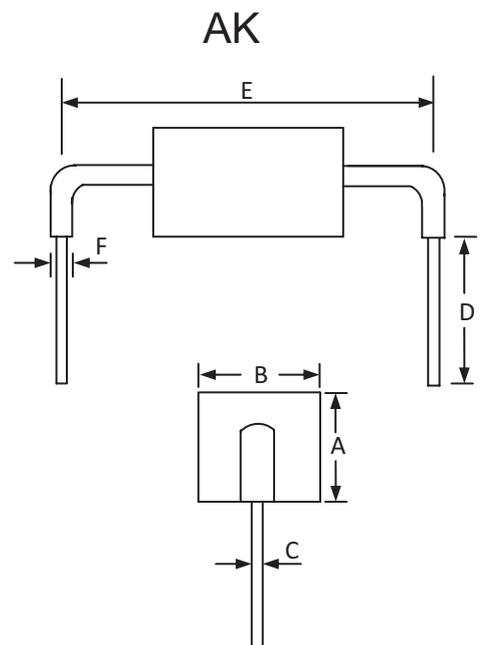
- Axial Lead Terminals
- High Current Transient Suppressor
- Excellent Clamping Capability
- Glass Passivated Junction
- Bi-directional
- Low Slope Resistance
- Repetition Rate(duty cycle):0.01%
- Halogen Free
- High Temperature Soldering:260°C/10 Seconds at Terminals
- Lead Free Finish/Rohs Compliant (Note1) ("P"Suffix designates Compliant. See ordering information)
- Epoxy meets UL 94 V-0 flammability rating
- Moisture Sensivity Level 1

## AK Series TVS Diodes 58-430 Volts

## Maximum Ratings And Thermal Characteristics

| Parameter  | Symbol                             | Value      | Unit |       |
|--|------------------------------------|------------|------|-------|
| Current Rating,Rated IPP<br>Measured With 8/20us Pulse | I <sub>pp</sub>                    | AK1        | 1    | KAmps |
|  |                                    | AK3        | 3    |       |
|  |                                    | AK6        | 6    |       |
|  |                                    | AK10       | 10   |       |
|  |                                    | AK15       | 15   |       |
| Operating Junction and<br>Storage Temperature<br>Range | T <sub>J</sub><br>T <sub>STG</sub> | -55 to+150 | °C   |       |

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



| DIM | DIMENSIONS |      |       |       | NOTE |
|-----|------------|------|-------|-------|------|
|     | INCHES     |      | MM    |       |      |
|     | MIN        | MAX  | MIN   | MAX   |      |
| A   | ---        | .630 | ---   | 16.00 |      |
| B   | ---        | .709 | ---   | 18.00 |      |
| C   | .047       | .052 | 1.20  | 1.32  |      |
| D   | .197       | ---  | 5.00  | ---   |      |
| E   | .922       | .979 | 23.43 | 24.87 |      |
| F   | ---        | .157 | ---   | 4.00  |      |

**Electrical Characteristics( $T_A=25^{\circ}\text{C}$  unless otherwise noted)**

| Part Number | Reverse Stand-Off Voltage |        | Breakdown Voltage | Test Current | Surge Current Rating | Maximum Clamping Voltage | Reverse Leakage |
|-------------|---------------------------|--------|-------------------|--------------|----------------------|--------------------------|-----------------|
|             | VAC(V)                    | VDC(V) | VBR(V)<br>MIN.@IT | IT(mA)       | 8/20us<br>(KA)       | VC(V)<br>@IPP            | IR(uA)<br>@VDC  |
| AK1-076C    | 54                        | 76     | 83                | 10           | 1                    | 135                      | 20              |
| AK3-058C    | 40                        | 58     | 64                | 10           | 3                    | 110                      | 20              |
| AK3-066C    | 45                        | 66     | 70                | 10           | 3                    | 125                      | 20              |
| AK3-076C    | 54                        | 76     | 85                | 10           | 3                    | 140                      | 20              |
| AK3-380C    | 275                       | 380    | 401               | 10           | 3                    | 520                      | 20              |
| AK3-430C    | 310                       | 430    | 440               | 10           | 3                    | 625                      | 20              |
| AK6-058C    | 40                        | 58     | 64                | 10           | 6                    | 110                      | 20              |
| AK6-066C    | 45                        | 66     | 70                | 10           | 6                    | 125                      | 20              |
| AK6-076C    | 54                        | 76     | 83                | 10           | 6                    | 135                      | 20              |
| AK6-170C    | 130                       | 170    | 180               | 10           | 6                    | 260                      | 20              |
| AK6-190C    | 145                       | 190    | 200               | 10           | 6                    | 290                      | 20              |
| AK6-240C    | 180                       | 240    | 250               | 10           | 6                    | 340                      | 20              |
| AK6-380C    | 275                       | 380    | 401               | 10           | 6                    | 520                      | 20              |
| AK6-430C    | 310                       | 430    | 440               | 10           | 6                    | 625                      | 20              |
| AK10-058C   | 40                        | 58     | 64                | 10           | 10                   | 110                      | 20              |
| AK10-066C   | 45                        | 66     | 70                | 10           | 10                   | 125                      | 20              |
| AK10-076C   | 54                        | 76     | 83                | 10           | 10                   | 135                      | 20              |
| AK10-170C   | 130                       | 170    | 180               | 10           | 10                   | 260                      | 20              |
| AK10-190C   | 145                       | 190    | 200               | 10           | 10                   | 290                      | 20              |
| AK10-200C   | 150                       | 200    | 222               | 10           | 10                   | 330                      | 20              |
| AK10-240C   | 180                       | 240    | 250               | 10           | 10                   | 340                      | 20              |
| AK10-380C   | 275                       | 380    | 401               | 10           | 10                   | 520                      | 20              |
| AK10-430C   | 310                       | 430    | 440               | 10           | 10                   | 625                      | 20              |
| AK15-058C   | 40                        | 58     | 64                | 10           | 15                   | 110                      | 20              |
| AK15-076C   | 54                        | 76     | 85                | 10           | 15                   | 145                      | 20              |

**Ratings and Characteristics Curves ( $T_A=25^{\circ}\text{C}$  unless otherwise noted)**

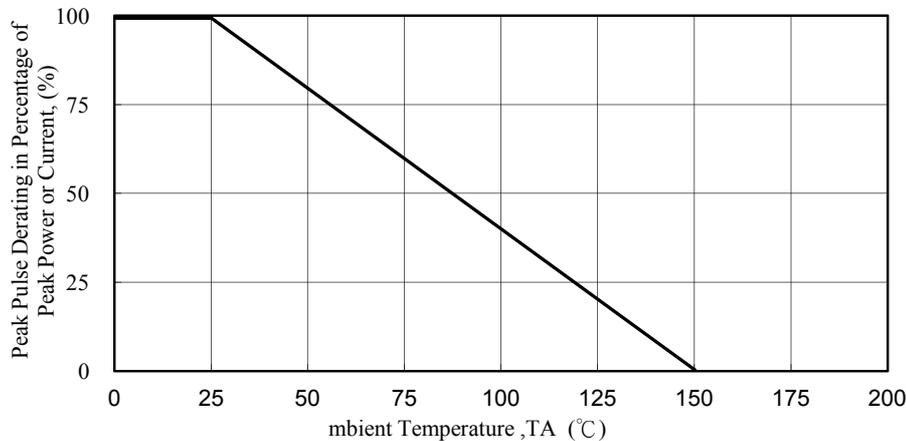


Fig. 1 - Pulse Derating Curve



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## Ordering Information

|                  |                 |
|------------------|-----------------|
| Device           | Packing         |
| (Part Number)-BP | Bulk:150pcs/Box |

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

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