

# ANTREX Electronics

Electronic Components Sourcing Information

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## Product Reference Information

**Part Number:** MOV-14D431KTR  
**Manufacturer:** Bourns Inc.  
**Package:** Disc 14mm  
**Availability:** Please confirm with sales

**Product Page:**

<https://antrexco.com/product/details/bourns-inc/mov-14d431ktr.html>

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## Contact Information

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Website: <https://antrexco.com>

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New & Original Components

Supplier verification and packaging condition review

CoC / RoHS / REACH documents available on request

Secure sourcing support for OEM / EMS projects

**Note:**

This PDF includes an ANTREX product reference cover page.

The original manufacturer datasheet follows from the next page.

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## Features

- High voltage and current rating
- Straight and kinked lead styles available
- Bidirectional
- Surge protection
- Fast response time
- RoHS compliant\*
- Agency listing: 

## Additional Information

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SAMPLES



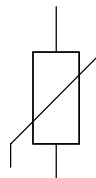
CONTACT

# MOV-14DxxxK Series – Metal Oxide Varistor

## General Information

The MOV-14DxxxK Series of 14 mm radial leaded varistor devices protects against overvoltage transients such as lightning, power contact and power induction. The metal oxide varistors offer a choice of varistor voltages from 18 V to 1800 V and  $V_{rms}$  voltages from 11 V to 1100 V.

The devices have a high current handling, high energy absorption capability and fast response times to protect against transient faults up to rated limits.



## Industry Standard Compliance

| Standard    | UL 1449                 |
|-------------|-------------------------|
| File Number | <a href="#">E313168</a> |

## Absolute Maximum Ratings (@ $T_A = 25^\circ\text{C}$ Unless Otherwise Noted)

| Parameter                                | Symbol    | Min. | Typ. | Max. | Unit                 |
|------------------------------------------|-----------|------|------|------|----------------------|
| Operating Temperature                    | $T_{OPR}$ | -40  | 25   | +105 | $^\circ\text{C}$     |
| Storage Temperature                      | $T_{STG}$ | -40  | 25   | +125 | $^\circ\text{C}$     |
| Rated Wattage                            | $P_W$     |      |      | 0.60 | Watt                 |
| Varistor Voltage Temperature Coefficient | $V_{TC}$  | 0    |      | 0.05 | % / $^\circ\text{C}$ |
| Response Time                            | $T_r$     |      | 10   | 25   | ns                   |
| Varistor Voltage Tolerance               | $V_{tol}$ | -10  | 0    | 10   | %                    |

## Electrical Characteristics (@ $T_A = 25^\circ\text{C}$ Unless Otherwise Noted)

| Bourns Part No. | Max. Continuous Voltage (V) |      | Voltage @ 1 mA DC (V) |      |      | Voltage @ Class Current (8/20 $\mu\text{s}$ ) |                           | Max. Peak Current (8/20 $\mu\text{s}$ ) | Max. Energy (J)    | Typ. Cap. (pF) |
|-----------------|-----------------------------|------|-----------------------|------|------|-----------------------------------------------|---------------------------|-----------------------------------------|--------------------|----------------|
|                 | r.m.s.                      | d.c. | Min.                  | Nom. | Max. | Class Current (A)                             | Max. Clamping Voltage (V) | One Time                                | 8/20 $\mu\text{s}$ | 1 kHz          |
|                 |                             |      |                       |      |      |                                               |                           |                                         |                    |                |
| MOV-14D180K     | 11                          | 14   | 16                    | 18   | 20   | 10                                            | 36                        | 1000                                    | 4.0                | 14400          |
| MOV-14D220K     | 14                          | 18   | 20                    | 22   | 24   | 10                                            | 43                        | 1000                                    | 5.0                | 12000          |
| MOV-14D270K     | 17                          | 22   | 24                    | 27   | 30   | 10                                            | 53                        | 1000                                    | 6.0                | 9840           |
| MOV-14D330K     | 20                          | 26   | 30                    | 33   | 36   | 10                                            | 65                        | 1000                                    | 7.5                | 8640           |
| MOV-14D390K     | 25                          | 31   | 35                    | 39   | 43   | 10                                            | 77                        | 1000                                    | 8.6                | 7680           |
| MOV-14D470K     | 30                          | 38   | 42                    | 47   | 52   | 10                                            | 93                        | 1000                                    | 10.0               | 7200           |
| MOV-14D560K     | 35                          | 45   | 50                    | 56   | 62   | 10                                            | 110                       | 1000                                    | 11.0               | 6960           |
| MOV-14D680K     | 40                          | 56   | 61                    | 68   | 75   | 10                                            | 135                       | 1000                                    | 14.0               | 6240           |
| MOV-14D820K     | 50                          | 65   | 74                    | 82   | 90   | 50                                            | 135                       | 4500                                    | 22.0               | 3000           |
| MOV-14D101K     | 60                          | 85   | 90                    | 100  | 110  | 50                                            | 165                       | 4500                                    | 28.0               | 2400           |
| MOV-14D121K     | 75                          | 100  | 108                   | 120  | 132  | 50                                            | 200                       | 4500                                    | 32.0               | 2040           |
| MOV-14D151K     | 95                          | 125  | 135                   | 150  | 165  | 50                                            | 250                       | 4500                                    | 40.0               | 1560           |
| MOV-14D181K     | 115                         | 150  | 162                   | 180  | 198  | 50                                            | 300                       | 4500                                    | 50.0               | 1320           |
| MOV-14D201K     | 130                         | 170  | 185                   | 200  | 225  | 50                                            | 340                       | 4500                                    | 57.0               | 1200           |
| MOV-14D221K     | 140                         | 180  | 198                   | 220  | 242  | 50                                            | 360                       | 4500                                    | 60.0               | 1080           |
| MOV-14D241K     | 150                         | 200  | 216                   | 240  | 264  | 50                                            | 395                       | 4500                                    | 63.0               | 996            |
| MOV-14D271K     | 175                         | 225  | 243                   | 270  | 297  | 50                                            | 455                       | 4500                                    | 70.0               | 888            |
| MOV-14D301K     | 190                         | 250  | 270                   | 300  | 330  | 50                                            | 500                       | 4500                                    | 77.0               | 804            |
| MOV-14D331K     | 210                         | 275  | 297                   | 330  | 363  | 50                                            | 550                       | 4500                                    | 85.0               | 732            |
| MOV-14D361K     | 230                         | 300  | 324                   | 360  | 396  | 50                                            | 595                       | 4500                                    | 93.0               | 672            |
| MOV-14D391K     | 250                         | 320  | 351                   | 390  | 429  | 50                                            | 650                       | 4500                                    | 100.0              | 612            |
| MOV-14D431K     | 275                         | 350  | 387                   | 430  | 473  | 50                                            | 710                       | 4500                                    | 115.0              | 552            |
| MOV-14D471K     | 300                         | 385  | 423                   | 470  | 517  | 50                                            | 775                       | 4500                                    | 125.0              | 516            |
| MOV-14D511K     | 320                         | 415  | 459                   | 510  | 561  | 50                                            | 845                       | 4500                                    | 125.0              | 468            |
| MOV-14D561K     | 350                         | 460  | 504                   | 560  | 616  | 50                                            | 925                       | 4500                                    | 125.0              | 432            |
| MOV-14D621K     | 385                         | 505  | 558                   | 620  | 682  | 50                                            | 1025                      | 4500                                    | 125.0              | 384            |
| MOV-14D681K     | 420                         | 560  | 612                   | 680  | 748  | 50                                            | 1120                      | 4500                                    | 130.0              | 360            |
| MOV-14D751K     | 460                         | 615  | 675                   | 750  | 825  | 50                                            | 1240                      | 4500                                    | 143.0              | 324            |
| MOV-14D781K     | 485                         | 640  | 702                   | 780  | 858  | 50                                            | 1290                      | 4500                                    | 148.0              | 312            |
| MOV-14D821K     | 510                         | 670  | 738                   | 820  | 902  | 50                                            | 1355                      | 4500                                    | 157.0              | 300            |
| MOV-14D911K     | 550                         | 745  | 819                   | 910  | 1001 | 50                                            | 1500                      | 4500                                    | 175.0              | 288            |
| MOV-14D102K     | 625                         | 825  | 900                   | 1000 | 1100 | 50                                            | 1650                      | 4500                                    | 190.0              | 264            |
| MOV-14D112K     | 680                         | 895  | 990                   | 1100 | 1210 | 50                                            | 1815                      | 4500                                    | 213.0              | 240            |
| MOV-14D152K     | 940                         | 1200 | 1350                  | 1500 | 1650 | 50                                            | 2475                      | 4500                                    | 329.0              | 180            |
| MOV-14D182K     | 1100                        | 1465 | 1620                  | 1800 | 1980 | 50                                            | 2970                      | 4500                                    | 335.0              | 156            |



**WARNING**  
Cancer and Reproductive Harm  
[www.P65Warnings.ca.gov](http://www.P65Warnings.ca.gov)

\*RoHS Directive 2015/863, Mar 31, 2015 and Annex.

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## Applications

- Power supplies
- Power systems
- Line voltage
- Telecom systems
- White goods / appliances

## MOV-14DxxxK Series – Metal Oxide Varistor

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### Product Dimensions

This is an RoHS compliant molded radial package with 100 % Sn plating on the terminations.

#### Straight Leads



(Kinked Product Dimensions continue on pages 3 and 4.)

| Bourns Part Number | Dim T (Max.)         | Dim H (Max.)          | Dim a (Typ.)         |
|--------------------|----------------------|-----------------------|----------------------|
| MOV-14D180K        | $\frac{3.8}{(.150)}$ | $\frac{20.0}{(.787)}$ | $\frac{1.6}{(.063)}$ |
| MOV-14D220K        | $\frac{3.9}{(.154)}$ |                       | $\frac{1.6}{(.063)}$ |
| MOV-14D270K        | $\frac{4.2}{(.165)}$ |                       | $\frac{1.7}{(.067)}$ |
| MOV-14D330K        | $\frac{3.8}{(.150)}$ |                       | $\frac{1.8}{(.071)}$ |
| MOV-14D390K        | $\frac{4.0}{(.157)}$ |                       | $\frac{1.9}{(.075)}$ |
| MOV-14D470K        | $\frac{4.2}{(.165)}$ |                       | $\frac{2.1}{(.083)}$ |
| MOV-14D560K        | $\frac{4.3}{(.169)}$ |                       | $\frac{2.3}{(.091)}$ |
| MOV-14D680K        | $\frac{4.4}{(.173)}$ |                       | $\frac{2.6}{(.102)}$ |
| MOV-14D820K        | $\frac{3.8}{(.150)}$ |                       | $\frac{1.6}{(.063)}$ |
| MOV-14D101K        | $\frac{4.0}{(.157)}$ |                       | $\frac{1.7}{(.067)}$ |
| MOV-14D121K        | $\frac{4.2}{(.165)}$ |                       | $\frac{1.7}{(.067)}$ |
| MOV-14D151K        | $\frac{4.4}{(.173)}$ |                       | $\frac{1.8}{(.071)}$ |
| MOV-14D181K        | $\frac{3.6}{(.142)}$ |                       | $\frac{1.9}{(.075)}$ |
| MOV-14D201K        | $\frac{3.8}{(.150)}$ |                       | $\frac{2.0}{(.079)}$ |
| MOV-14D221K        | $\frac{3.9}{(.154)}$ |                       | $\frac{2.1}{(.083)}$ |
| MOV-14D241K        | $\frac{4.0}{(.157)}$ |                       | $\frac{2.2}{(.087)}$ |
| MOV-14D271K        | $\frac{4.2}{(.165)}$ |                       | $\frac{2.3}{(.091)}$ |
| MOV-14D301K        | $\frac{4.4}{(.173)}$ |                       | $\frac{2.5}{(.098)}$ |

| Bourns<br>Part Number | Dim T<br>(Max.)      | Dim H<br>(Max.)       | Dim a<br>(Typ.)      |
|-----------------------|----------------------|-----------------------|----------------------|
| MOV-14D331K           | $\frac{4.6}{(.181)}$ | $\frac{20.0}{(.787)}$ | $\frac{2.6}{(.102)}$ |
| MOV-14D361K           | $\frac{4.8}{(.189)}$ |                       | $\frac{2.6}{(.102)}$ |
| MOV-14D391K           | $\frac{5.0}{(.197)}$ |                       | $\frac{2.9}{(.114)}$ |
| MOV-14D431K           | $\frac{5.2}{(.205)}$ |                       | $\frac{3.1}{(.122)}$ |
| MOV-14D471K           | $\frac{5.4}{(.213)}$ |                       | $\frac{3.2}{(.126)}$ |
| MOV-14D511K           | $\frac{5.5}{(.217)}$ |                       | $\frac{3.5}{(.138)}$ |
| MOV-14D561K           | $\frac{6.0}{(.236)}$ | $\frac{22.0}{(.866)}$ | $\frac{3.8}{(.150)}$ |
| MOV-14D621K           | $\frac{6.4}{(.252)}$ |                       | $\frac{4.0}{(.157)}$ |
| MOV-14D681K           | $\frac{6.5}{(.256)}$ |                       | $\frac{4.2}{(.165)}$ |
| MOV-14D751K           | $\frac{6.7}{(.264)}$ |                       | $\frac{4.2}{(.165)}$ |
| MOV-14D781K           | $\frac{6.9}{(.272)}$ |                       | $\frac{4.4}{(.173)}$ |
| MOV-14D821K           | $\frac{7.3}{(.287)}$ |                       | $\frac{4.4}{(.173)}$ |
| MOV-14D911K*          | $\frac{7.3}{(.287)}$ |                       | $\frac{4.4}{(.173)}$ |
| MOV-14D102K*          | $\frac{8.2}{(.323)}$ |                       | $\frac{4.6}{(.181)}$ |
| MOV-14D112K*          | $\frac{8.7}{(.343)}$ | $\frac{5.0}{(.197)}$  |                      |
| MOV-14D152K**         | N/A                  |                       |                      |
| MOV-14D182K**         | N/A                  |                       |                      |

\* Not available in Tape & Reel packaging.

\*\*Not available in Tape & Reel packaging.

Not available in Straight Lead configuration; see Kinked Leads (In-line) configuration.

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# MOV-14DxxxK Series – Metal Oxide Varistor

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## Product Dimensions (Continued)

This is an RoHS compliant molded radial package with 100 % Sn plating on the terminations.

### Kinked Leads (Outward)



(Kinked Lead Product Dimensions continue on page 4.)

| Bourns Part Number | Dim T (Max.)         | Dim H (Max.)   | Dim a (Typ.)         |
|--------------------|----------------------|----------------|----------------------|
| MOV-14D180KK       | $\frac{3.8}{(.150)}$ | 21.0<br>(.827) | $\frac{1.6}{(.063)}$ |
| MOV-14D220KK       | $\frac{3.9}{(.154)}$ |                | $\frac{1.6}{(.063)}$ |
| MOV-14D270KK       | $\frac{4.2}{(.165)}$ |                | $\frac{1.7}{(.067)}$ |
| MOV-14D330KK       | $\frac{3.8}{(.150)}$ |                | $\frac{1.8}{(.071)}$ |
| MOV-14D390KK       | $\frac{4.0}{(.157)}$ |                | $\frac{1.9}{(.075)}$ |
| MOV-14D470KK       | $\frac{4.2}{(.165)}$ |                | $\frac{2.1}{(.083)}$ |
| MOV-14D560KK       | $\frac{4.3}{(.169)}$ |                | $\frac{2.3}{(.091)}$ |
| MOV-14D680KK       | $\frac{4.4}{(.173)}$ |                | $\frac{2.6}{(.102)}$ |
| MOV-14D820KK       | $\frac{3.8}{(.150)}$ |                | $\frac{1.6}{(.063)}$ |
| MOV-14D101KK       | $\frac{4.0}{(.157)}$ |                | $\frac{1.7}{(.067)}$ |
| MOV-14D121KK       | $\frac{4.2}{(.165)}$ |                | $\frac{1.7}{(.067)}$ |
| MOV-14D151KK       | $\frac{4.4}{(.173)}$ |                | $\frac{1.8}{(.071)}$ |
| MOV-14D181KK       | $\frac{3.6}{(.142)}$ |                | $\frac{1.9}{(.075)}$ |
| MOV-14D201KK       | $\frac{3.8}{(.150)}$ |                | $\frac{2.0}{(.079)}$ |
| MOV-14D221KK       | $\frac{3.9}{(.154)}$ |                | $\frac{2.1}{(.083)}$ |
| MOV-14D241KK       | $\frac{4.0}{(.157)}$ |                | $\frac{2.2}{(.087)}$ |
| MOV-14D271KK       | $\frac{4.2}{(.165)}$ |                | $\frac{2.3}{(.091)}$ |
| MOV-14D301KK       | $\frac{4.4}{(.173)}$ |                | $\frac{2.5}{(.098)}$ |

\* Not available in Tape & Reel packaging.

| Bourns Part Number | Dim T (Max.)         | Dim H (Max.)                                        | Dim a (Typ.)         |
|--------------------|----------------------|-----------------------------------------------------|----------------------|
| MOV-14D331KK       | $\frac{4.6}{(.181)}$ | 21.0<br>(.827)                                      | $\frac{2.6}{(.102)}$ |
| MOV-14D361KK       | $\frac{4.8}{(.189)}$ |                                                     | $\frac{2.6}{(.102)}$ |
| MOV-14D391KK       | $\frac{5.0}{(.197)}$ |                                                     | $\frac{2.9}{(.114)}$ |
| MOV-14D431KK       | $\frac{5.2}{(.205)}$ |                                                     | $\frac{3.1}{(.122)}$ |
| MOV-14D471KK       | $\frac{5.4}{(.213)}$ | 23.0<br>(.905)                                      | $\frac{3.2}{(.126)}$ |
| MOV-14D511KK       | $\frac{5.5}{(.217)}$ |                                                     | $\frac{3.5}{(.138)}$ |
| MOV-14D561KK       | $\frac{6.0}{(.236)}$ |                                                     | $\frac{3.8}{(.150)}$ |
| MOV-14D621KK       | $\frac{6.4}{(.252)}$ |                                                     | $\frac{4.0}{(.157)}$ |
| MOV-14D681KK       | $\frac{6.5}{(.256)}$ | N/A<br><br>See Kinked Leads (In-line) Configuration | $\frac{4.2}{(.165)}$ |
| MOV-14D751KK       | $\frac{6.7}{(.264)}$ |                                                     | $\frac{4.2}{(.165)}$ |
| MOV-14D781KK       | $\frac{6.9}{(.272)}$ |                                                     | $\frac{4.4}{(.173)}$ |
| MOV-14D821KK       |                      |                                                     |                      |
| MOV-14D911KK*      |                      |                                                     |                      |
| MOV-14D102KK*      |                      |                                                     |                      |
| MOV-14D112KK*      |                      |                                                     |                      |
| MOV-14D152KK*      |                      |                                                     |                      |
| MOV-14D182KK*      |                      |                                                     |                      |

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# MOV-14DxxxK Series – Metal Oxide Varistor

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## Product Dimensions (Continued)

This is an RoHS compliant molded radial package with 100 % Sn plating on the terminations.

### Kinked Leads (In-line)



| Bourns Part Number | Dim T (Max.)                                    |
|--------------------|-------------------------------------------------|
| MOV-14D180KK       | N/A<br>See Kinked Leads (Outward) Configuration |
| MOV-14D220KK       |                                                 |
| MOV-14D270KK       |                                                 |
| MOV-14D330KK       |                                                 |
| MOV-14D390KK       |                                                 |
| MOV-14D470KK       |                                                 |
| MOV-14D560KK       |                                                 |
| MOV-14D680KK       |                                                 |
| MOV-14D820KK       |                                                 |
| MOV-14D101KK       |                                                 |
| MOV-14D121KK       |                                                 |
| MOV-14D151KK       |                                                 |
| MOV-14D181KK       |                                                 |
| MOV-14D201KK       |                                                 |
| MOV-14D221KK       |                                                 |
| MOV-14D241KK       |                                                 |
| MOV-14D271KK       |                                                 |
| MOV-14D301KK       |                                                 |

| Bourns Part Number | Dim T (Max.)                                    |
|--------------------|-------------------------------------------------|
| MOV-14D331KK       | N/A<br>See Kinked Leads (Outward) Configuration |
| MOV-14D361KK       |                                                 |
| MOV-14D391KK       |                                                 |
| MOV-14D431KK       |                                                 |
| MOV-14D471KK       |                                                 |
| MOV-14D511KK       |                                                 |
| MOV-14D561KK       |                                                 |
| MOV-14D621KK       |                                                 |
| MOV-14D681KK       |                                                 |
| MOV-14D751KK       |                                                 |
| MOV-14D821KK       | 7.3<br>(.287)                                   |
| MOV-14D911KK*      | 7.7<br>(.303)                                   |
| MOV-14D102KK*      | 8.2<br>(.323)                                   |
| MOV-14D112KK*      | 8.7<br>(.343)                                   |
| MOV-14D152KK*      | 11.0<br>(.433)                                  |
| MOV-14D182KK*      | 12.6<br>(.496)                                  |

\* Not available in Tape & Reel packaging.

## Typical Part Marking

| Bourns Part Number | Bourns Part Marking |
|--------------------|---------------------|
| MOV-14D180K        | 14D180K             |
| MOV-14D220K        | 14D220K             |
| MOV-14D270K        | 14D270K             |
| MOV-14D330K        | 14D330K             |
| MOV-14D390K        | 14D390K             |
| MOV-14D470K        | 14D470K             |
| MOV-14D560K        | 14D560K             |
| MOV-14D680K        | 14D680K             |
| MOV-14D820K        | 14D820K             |
| MOV-14D101K        | 14D101K             |
| MOV-14D121K        | 14D121K             |
| MOV-14D151K        | 14D151K             |
| MOV-14D181K        | 14D181K             |
| MOV-14D201K        | 14D201K             |
| MOV-14D221K        | 14D221K             |
| MOV-14D241K        | 14D241K             |
| MOV-14D271K        | 14D271K             |
| MOV-14D301K        | 14D301K             |
| MOV-14D331K        | 14D331K             |
| MOV-14D361K        | 14D361K             |
| MOV-14D391K        | 14D391K             |
| MOV-14D431K        | 14D431K             |
| MOV-14D471K        | 14D471K             |
| MOV-14D511K        | 14D511K             |
| MOV-14D561K        | 14D561K             |
| MOV-14D621K        | 14D621K             |
| MOV-14D681K        | 14D681K             |
| MOV-14D751K        | 14D751K             |
| MOV-14D781K        | 14D781K             |
| MOV-14D821K        | 14D821K             |
| MOV-14D911K        | 14D911K             |
| MOV-14D102K        | 14D102K             |
| MOV-14D112K        | 14D112K             |
| MOV-14D152K        | 14D152K             |
| MOV-14D182K        | 14D182K             |

NOTE: The "5" marking on MOV products is for traceability of production assembly for quality assurance compliance.

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## MOV-14DxxxK Series – Metal Oxide Varistor

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### How to Order

**MOV - 14D nn (n) K (TR)**

Model Designator \_\_\_\_\_  
MOV = Metal Oxide Varistor

Disc Diameter \_\_\_\_\_  
14D = 14 mm

Nominal Varistor Voltage \_\_\_\_\_  
See Electrical Characteristics Table

Multiplier of Voltage Digits \_\_\_\_\_  
0 = No multiplier    1 = nn \* 10<sup>1</sup>    2 = nn \* 10<sup>2</sup>

Varistor Voltage Tolerance \_\_\_\_\_  
K = 10 %

Lead Style \_\_\_\_\_  
Blank = Straight Leads    K = Kinked Leads

Packaging \_\_\_\_\_  
Blank = Bulk    TR = Tape & Reel\*

#### Examples:

MOV-14D270K .....27 V, Straight Leads, Bulk Pack

MOV-14D680KKTR .....68 V, Kinked (Outward) Leads, Tape & Reel

MOV-14D152KK .....1500 V, Kinked (In-line) Leads, Bulk Pack

\*\* Models MOV-14D911K, 102K, 112K, 152K and 182K are not available in Tape & Reel packaging.

### Environmental Specifications

Moisture Sensitivity Level ..... 1  
ESD Classification (HBM)..... N/A

### Internal Construction



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# MOV-14DxxxK Series – Metal Oxide Varistor

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## Performance Graphs

### V-I Characteristics

**MOV-14D180K to MOV-14D680K**



**MOV-14D820K to MOV-14D431K**



**MOV-14D471K to MOV-14D182K**



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# MOV-14DxxxK Series – Metal Oxide Varistor

**BOURNS®**

## Pulse Rating Curves



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# MOV-14DxxxK Series – Metal Oxide Varistor

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## Packaging Information

### TAPE & REEL - Straight Leads



| Item                                 | Symbol     | 14 mm Disc                              |
|--------------------------------------|------------|-----------------------------------------|
| Reel Outside Diameter                | RD         | $\frac{355}{(13.98)}$                   |
| Reel Inner Diameter                  | RD1        | $\frac{30}{(1.181)}$                    |
| Tape Width                           | RW         | $\frac{55}{(2.16)}$                     |
| Reel Width                           | RW1        | $\frac{63}{(2.48)} \text{ max.}$        |
| Pitch of Component                   | P          | $\frac{25.4 \pm 1.0}{(1.00 \pm 0.04)}$  |
| Feed Hole Pitch                      | P0         | $\frac{12.7 \pm 0.2}{(0.50 \pm 0.008)}$ |
| Feed Hole Center to Pitch            | P1         | $\frac{8.95 \pm 0.7}{(0.352 \pm 0.03)}$ |
| Feed Hole Center to Component Center | P2         | $\frac{12.7 \pm 0.7}{(0.50 \pm 0.03)}$  |
| Lead to Lead Distance                | F          | $\frac{7.50 \pm 0.8}{(0.30 \pm 0.03)}$  |
| Component Alignment                  | $\Delta h$ | $\frac{4.0}{(0.16)} \text{ max.}$       |
| Tape Width                           | W          | $\frac{18.0 \pm 0.5}{(0.71 \pm 0.02)}$  |
| Hole Down Tape Width                 | W0         | $\frac{12.0 \pm 0.8}{(0.47 \pm 0.03)}$  |
| Hole Position                        | W1         | $\frac{9.0 \pm 0.5}{(0.35 \pm 0.02)}$   |
| Hole Down Tape Position              | W2         | $\frac{3.0}{(0.12)} \text{ max.}$       |
| Height From Center to Component Base | H          | $\frac{19.0 \pm 1.0}{(0.75 \pm 0.04)}$  |
| Component Height                     | H1         | $\frac{40.0}{(1.57)} \text{ max.}$      |
| Feed Hole Diameter                   | D0         | $\frac{4.0 \pm 0.2}{(0.16 \pm 0.08)}$   |
| Total Tape Thickness                 | t          | $\frac{0.6 \pm 0.3}{(0.02 \pm 0.01)}$   |
| Quantity per Reel                    | -          |                                         |
| MOV-14D180K – 14D331K                |            | 500                                     |
| MOV-14D361K - 14D821K                |            | 400                                     |

NOTE: Models MOV-14D911K, 102K, 112K, 152K and 182K are not available in Tape & Reel packaging.

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# MOV-14DxxxK Series – Metal Oxide Varistor

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## Packaging Information (Continued)

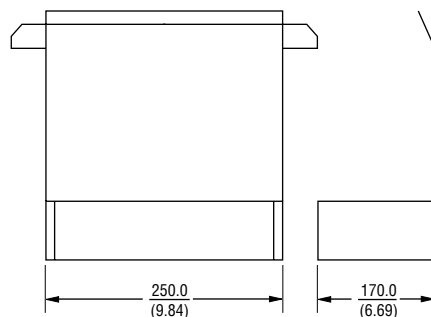
### TAPE & REEL - Kinked Leads



NOTE: Models MOV-14D911KK, 102KK, 112KK, 152KK and 182KK are not available in Tape & Reel packaging.

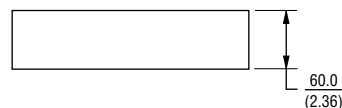
| Item                                                          | Symbol     | 14 mm Disc                              |
|---------------------------------------------------------------|------------|-----------------------------------------|
| Reel Outside Diameter                                         | RD         | $\frac{355}{(13.98)}$                   |
| Reel Inner Diameter                                           | RD1        | $\frac{30}{(1.181)}$                    |
| Tape Width                                                    | RW         | $\frac{55}{(2.16)}$                     |
| Reel Width                                                    | RW1        | $\frac{63}{(2.48)}$ max.                |
| Pitch of Component                                            | P          | $\frac{25.4 \pm 1.0}{(1.00 \pm 0.04)}$  |
| Feed Hole Pitch                                               | P0         | $\frac{12.7 \pm 0.2}{(0.50 \pm 0.008)}$ |
| Feed Hole Center to Pitch                                     | P1         | $\frac{8.95 \pm 0.7}{(0.352 \pm 0.03)}$ |
| Feed Hole Center to Component Center                          | P2         | $\frac{12.7 \pm 0.7}{(0.50 \pm 0.03)}$  |
| Lead to Lead Distance                                         | F          | $\frac{7.50 \pm 0.8}{(0.30 \pm 0.03)}$  |
| Component Alignment                                           | $\Delta h$ | $\frac{4.0}{(0.157)}$ max.              |
| Tape Width                                                    | W          | $\frac{18.0 \pm 0.5}{(0.71 \pm 0.02)}$  |
| Hole Down Tape Width                                          | W0         | $\frac{12.0 \pm 0.8}{(0.47 \pm 0.03)}$  |
| Hole Position                                                 | W1         | $\frac{9.0 \pm 0.5}{(0.35 \pm 0.02)}$   |
| Hole Down Tape Position                                       | W2         | $\frac{3.0}{(0.12)}$ max.               |
| Height From Component Top to Kinked Base (MOV-14D180KK~511KK) | H          | $\frac{21.0}{(0.83)}$ max.              |
| Height From Component Top to Kinked Base (MOV-14D561KK~821KK) | H          | $\frac{23.0}{(0.91)}$ max.              |
| Seating Plane Height                                          | H0         | $\frac{16.0 \pm 0.5}{(0.63 \pm 0.02)}$  |
| Component Height                                              | H1         | $\frac{40.0}{(1.57)}$ max.              |
| Feed Hole Diameter                                            | D0         | $\frac{4.0 \pm 0.2}{(0.16 \pm 0.08)}$   |
| Total Tape Thickness                                          | t          | $\frac{0.6 \pm 0.3}{(0.02 \pm 0.01)}$   |
| Quantity per Reel                                             |            |                                         |
| MOV-14D180KK – 14D331KK                                       | -          | 500                                     |
| MOV-14D361KK - 14D821KK                                       | -          | 400                                     |

### BULK



#### QUANTITY:

MOV-14D180K - MOV14D331K = 800 PCS. PER BOX  
 MOV-14D361K - MOV14D621K = 600 PCS. PER BOX  
 MOV-14D681K - MOV14D112K = 400 PCS. PER BOX  
 MOV-14D152K - MOV14D182K = 300 PCS. PER BOX



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- Bourns expressly identifies Bourns® standard products that are suitable for use in the typical aviation applications/systems requiring System Design Assurance Level (RTCA DO-254 DAL) of C, D or E in its publication entitled "Bourns Civilian Aerospace/Aviation Grade Component Guide." Bourns does not test its products for compliance with United States Federal Aviation Administration standards or any other generally equivalent governmental organization standard applicable to products designed or manufactured for use in aviation applications. Use of Bourns® standard components in aviation applications associated with RTCA DO-254 DAL A or B without proper approval noted above shall be at the user's sole risk.
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