

ANTREX Electronics

Electronic Components Sourcing Information

Product Reference Information

Part Number: MOV-14D301KKTR
Manufacturer: Bourns Inc.
Package: Disc 14mm
Availability: Please confirm with sales

Product Page:

<https://antrexco.com/product/details/bourns-inc/mov-14d301kktr.html>

Request a Quote:

[Submit RFQ for this part](#)



Scan for product page

Contact Information

Email: info@antrexco.com

WhatsApp: +86-186-8066-5326

Website: <https://antrexco.com>

Quality & Trust

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.



Features

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

Additional Information

Click these links for more information:



PRODUCT
SELECTOR



TECHNICAL
LIBRARY



INVENTORY



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	E313168

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 μs)		Max. Peak Current (8/20 μs)	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 μs	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

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

Specifications are subject to change without notice. Users should verify actual device performance in their specific applications. The products described herein and this document are subject to specific legal disclaimers as set forth on the last page of this document, and at www.bourns.com/docs/legal/disclaimer.pdf.

Applications

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

MOV-14DxxxK Series – Metal Oxide Varistor

BOURNS®

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	$\frac{3.8}{(.150)}$	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 Part Number	Dim T (Max.)	Dim H (Max.)	Dim a (Typ.)
MOV-14D331K	$\frac{4.6}{(.181)}$	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	$\frac{5.5}{(.217)}$	22.0 (.866)	$\frac{3.5}{(.138)}$
MOV-14D561K	$\frac{6.0}{(.236)}$		$\frac{3.8}{(.150)}$
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.

Specifications are subject to change without notice.

Users should verify actual device performance in their specific applications.

The products described herein and this document are subject to specific legal disclaimers as set forth on the last page of this document, and at www.bourns.com/docs/legal/disclaimer.pdf.

MOV-14DxxxK Series – Metal Oxide Varistor

BOURNS®

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	$\frac{3.8}{(.150)}$	$\frac{21.0}{(.827)}$	$\frac{1.6}{(.063)}$
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	$\frac{4.6}{(.181)}$	$\frac{21.0}{(.827)}$	$\frac{2.6}{(.102)}$
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	$\frac{5.4}{(.213)}$	$\frac{23.0}{(.905)}$	$\frac{3.2}{(.126)}$
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 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*			

Specifications are subject to change without notice.

Users should verify actual device performance in their specific applications.

The products described herein and this document are subject to specific legal disclaimers as set forth on the last page of this document, and at www.bourns.com/docs/legal/disclaimer.pdf.

MOV-14DxxxK Series – Metal Oxide Varistor

BOURNS®

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 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 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	$\frac{7.3}{(.287)}$
MOV-14D911KK*	$\frac{7.7}{(.303)}$
MOV-14D102KK*	$\frac{8.2}{(.323)}$
MOV-14D112KK*	$\frac{8.7}{(.343)}$
MOV-14D152KK*	$\frac{11.0}{(.433)}$
MOV-14D182KK*	$\frac{12.6}{(.496)}$

* 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.

Specifications are subject to change without notice. Users should verify actual device performance in their specific applications. The products described herein and this document are subject to specific legal disclaimers as set forth on the last page of this document, and at www.bourns.com/docs/legal/disclaimer.pdf.

MOV-14DxxxK Series – Metal Oxide Varistor

BOURNS®

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 * 10¹ 2 = nn * 10²

Varistor Voltage Tolerance _____
K = 10 %

Lead Style _____
Blank = Straight Leads K = Kinked Leads

Packaging _____
Blank = Bulk TR = Tape & Reel*

Examples:

MOV-14D270K27 V, Straight Leads, Bulk Pack

MOV-14D680KKTR68 V, Kinked (Outward) Leads, Tape & Reel

MOV-14D152KK1500 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



Specifications are subject to change without notice.

Users should verify actual device performance in their specific applications.

The products described herein and this document are subject to specific legal disclaimers as set forth on the last page of this document, and at www.bourns.com/docs/legal/disclaimer.pdf.

MOV-14DxxxK Series – Metal Oxide Varistor

BOURNS®

Performance Graphs

V-I Characteristics

MOV-14D180K to MOV-14D680K



MOV-14D820K to MOV-14D431K



MOV-14D471K to MOV-14D182K



Specifications are subject to change without notice.

Users should verify actual device performance in their specific applications.

The products described herein and this document are subject to specific legal disclaimers as set forth on the last page of this document, and at www.bourns.com/docs/legal/disclaimer.pdf.

MOV-14DxxxK Series – Metal Oxide Varistor

BOURNS®

Pulse Rating Curves



Specifications are subject to change without notice.

Users should verify actual device performance in their specific applications.

The products described herein and this document are subject to specific legal disclaimers as set forth on the last page of this document, and at www.bourns.com/docs/legal/disclaimer.pdf.

MOV-14DxxxK Series – Metal Oxide Varistor

BOURNS®

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	Δh	$\frac{4.0}{(0.16)} \text{ max.}$
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.

BOURNS®

Americas: Tel: +1 951-781-5500 • Email: americus@bourns.com

Mexico: Tel: +52-614-478-0400 • Email: mexicus@bourns.com

Asia: Tel: +886-2-2562-4117 • Email: asiacus@bourns.com

EMEA: Tel: +36 88 885 877 • Email: eurocus@bourns.com

www.bourns.com

Specifications are subject to change without notice.

Users should verify actual device performance in their specific applications.

The products described herein and this document are subject to specific legal disclaimers as set forth on the last page of this document, and at www.bourns.com/docs/legal/disclaimer.pdf.

MOV-14DxxxK Series – Metal Oxide Varistor

BOURNS®

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	Δh	$\frac{4.0}{(0.157)}$ 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



REV. 07/25

Specifications are subject to change without notice.

Users should verify actual device performance in their specific applications.

The products described herein and this document are subject to specific legal disclaimers as set forth on the last page of this document, and at www.bourns.com/docs/legal/disclaimer.pdf.

This legal disclaimer applies to purchasers and users of Bourns® products manufactured by or on behalf of Bourns, Inc. and its affiliates (collectively, "Bourns").

Unless otherwise expressly indicated in writing, Bourns® products and data sheets relating thereto are subject to change without notice. Users should check for and obtain the latest relevant information and verify that such information is current and complete before placing orders for Bourns® products.

The characteristics and parameters of a Bourns® product set forth in its data sheet are based on laboratory conditions, and statements regarding the suitability of products for certain "typical" applications are based on Bourns' knowledge of typical requirements in generic applications. Bourns assumes that "typical" applications include failsafe/backup features to address critical risks to users and are designed to allow rework of Bourns® product to avoid scrap of a device solely due to malfunctioning Bourns® product. The characteristics and parameters of a Bourns® product in a user application may vary from the data sheet characteristics and parameters due to (i) the combination of the Bourns® product with other components in the user's application, or (ii) the environment of the user application itself. The characteristics and parameters of a Bourns® product also can and do vary in different applications and actual performance may vary over time. Thus, users should always verify the actual performance of the Bourns® product in their specific devices and applications and make their own independent judgments regarding the suitability of Bourns® product and the amount of additional test margin to design into their device or application to compensate for differences between laboratory and real-world conditions.

Unless Bourns has explicitly designated an individual Bourns® product as meeting the requirements of a particular industry standard (e.g., IATF 16949) or a particular qualification (e.g., UL listed or recognized), Bourns is not responsible for any failure of an individual Bourns® product to meet the requirements of such industry standard or particular qualification even if such industry standard or qualification is a "state of art". Users of Bourns® products are responsible for ensuring compliance with safety-related requirements and standards applicable to their devices or applications.

Bourns® products are not recommended, authorized or intended for use in applications where failure or malfunction may result in personal injury, death, or severe property or environmental damage, such as without limitation nuclear, life-critical medical and certain automotive and aviation applications. Except as set forth in the bullet points below or unless expressly and specifically approved in writing on a case-by-case basis by an authorized Bourns' representative, use of any Bourns® products in such unauthorized high-risk applications is at the user's sole risk.

- Bourns considers implantable/invasive devices and devices/procedures designed as life-supporting or life-sustaining by the U.S. Food and Drug Administration or equivalent organizations outside of the United States as "life-critical" medical applications. Bourns expressly identifies those Bourns® standard products that are suitable for use in typical medical applications that are not life-critical in its publication entitled "Bourns Medical Grade Component Guide."
- Bourns expressly identifies those Bourns® standard products that are suitable for use in typical automotive applications associated with any Automate Safety Integrity Level (ASIL) in its publication entitled "Bourns Automotive Grade Component Guide." Bourns' designation of Bourns® product as compliant with the AEC-Q standard does not by itself mean that Bourns has approved such product for use in an automotive application.
- 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.
- Bourns will review and authorize on a case-by-case basis the use of Bourns® standard products which are at least AEC-Q compliant in space-related civil applications (rockets, satellites) with a negotiated cross-waiver and indemnity agreement.

The use and level of testing applicable to Bourns® custom products shall be negotiated on a case-by-case basis by Bourns and the user for which such Bourns® custom products are specially designed. Absent a written agreement between Bourns and the user regarding the use and level of such testing, the above provisions applicable to Bourns® standard products shall also apply to such Bourns® custom products.

Use of Bourns® products or Bourns' technology in military/defense applications must be reviewed with Bourns for compliance with applicable export control laws and embargoes. Users shall not sell, transfer, export or re-export (which includes transfers within a country) any Bourns® products or technology or technical data for use in activities which involve the design, development, production, use or stockpiling of nuclear, chemical or biological weapons or missiles, nor shall they use Bourns® products or technology or technical data in any facility which engages in activities relating to such devices. Further, Bourns® products and Bourns' technology and technical data may not under any circumstance be exported or re-exported to countries subject to international sanctions or embargoes. Bourns® products and technology may not, without prior authorization from Bourns and/or the Government of a country where such product/technology is designed and/or manufactured, be resold, transferred, or re-exported (including within the same country) to any party not eligible to receive commodities, software, and technical data originating in such country.

To the maximum extent permitted by applicable law, Bourns disclaims (i) any and all liability for special, punitive, consequential, incidental or indirect damages or lost revenues or lost profits, and (ii) any and all implied warranties (those not based on parameters specified in Bourns' data sheets and/or specifications), including implied warranties of fitness for particular purpose, non-infringement and merchantability.

For your convenience, copies of this Legal Disclaimer Notice with German, Spanish, Japanese, Traditional Chinese and Simplified Chinese bilingual versions are available at:

Web Page: <https://www.bourns.com/legal/disclaimers-terms-and-policies>

PDF: <https://www.bourns.com/docs/Legal/disclaimer.pdf>