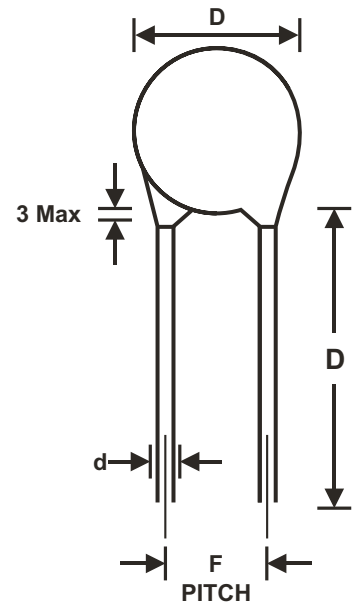




METAL OXIDE VARISTORS (MOV) STYLE & DIMENSIONS

Series Dim.	07	10	14	20
D-MAX	9.00	12.00	17.00	24.00
d+/- 0.02	0.50	0.50	0.60	0.80
F+/- 1mm	5.00	* 5.00	7.50	7.50

* 7.5 mm available on request
 • All Dimensions in mm.



HOW TO ORDER

PART NUMBER EXPLANATION

EXAMPLE : PV10D095KD

P	V	10	D	095	K	D
↓	↓	↓	↓	↓	↓	↓
GPEL	VARISTOR	SERIES 07 10 14 20	DISC TYPE	Maximum Allowable Voltage ACrms	Tolerance on Varistor Voltage @ 1mA K = ± 10% M = ± 20%	Packing 1-- Loose 31.7mm Min. D -- Cut in 10mm +2mm - 0mm



RANGE AND SPECIFICATION

Part No.	Maximum Allowable Voltage		Varistor Voltage V / 1mA		Maximum Clamping Voltage (V) Max.	Withstanding Surge Current (8/20us)		Rated Wattage (W)	Energy 10/1000us (J)
	ACrms (V)	DC (V)	(V)	Tolerance Min. - Max.		1 Time (A)	2 Times (A)		
PV07D011KD	11	14	18	(16-20)	38	250	125	0.02	1.2
PV07D014KD	14	18	22	(20-24)	43	250	125	0.02	1.4
PV07D017KD	17	22	27	(24-30)	53	250	125	0.02	1.7
PV07D020KD	20	26	33	(30-36)	65	250	125	0.02	2.2
PV07D025KD	25	31	39	(35-43)	77	250	125	0.02	2.4
PV07D035KD	35	45	56	(50-62)	110	250	125	0.02	3.5
PV07D040KD	40	56	68	(61-75)	135	250	125	0.02	4.3
PV07D095KD	95	125	150	(135-165)	250	1200	600	0.25	11.0
PV07D250KD	250	320	390	(351-429)	650	1,200	600	0.25	30.00
PV07D275KD	275	350	430	(387-473)	710	1,200	600	0.25	33.00
PV07D300KD	300	385	470	(423-517)	775	1,200	600	0.25	35.00
PV07D320KD	320	418	510	(459-561)	842	1,200	600	0.25	37.00
PV10D025KD	25	31	39	(35-43)	77	500	250	0.05	4.70
PV10D030KD	30	38	47	(42-52)	93	500	250	0.05	6.00
PV10D040KD	40	56	68	(61-75)	135	500	250	0.05	8.50
PV10D050KD	50	65	82	(74-90)	135	2,500	1,250	0.40	11.00
PV10D060KD	60	85	100	(90-110)	165	2,500	1,250	0.40	14.00
PV10D095KD	95	125	150	(135-165)	250	2,500	1,250	0.40	22.00
PV10D115KD	115	150	180	(162-198)	300	2,500	1,250	0.40	26.00
PV10D130KD	130	170	200	(185-225)	340	2,500	1,250	0.40	28.50
PV10D150KD	150	200	240	(216-264)	395	2,500	1,250	0.40	33.50
PV10D175KD	175	225	270	(247-303)	455	2,500	1,250	0.40	39.50
PV10D250KD	250	320	390	(351-429)	650	2,500	1,250	0.40	60.00
PV10D275KD	275	350	430	(387-473)	710	2,500	1,250	0.40	66.00
PV10D320KD	320	418	510	(459-561)	842	2,500	1,250	0.40	74.00
PV10D420KD	420	560	680	(612-748)	1,120	2,500	1,250	0.40	86.00
PV10D510KD	510	670	820	(738-902)	1,355	2,500	1,250	0.40	94.00
PV14D025KD	25	31	39	(35-43)	77	1,000	500	0.10	9.40
PV14D030KD	30	38	47	(42-52)	93	1,000	500	0.10	12.00
PV14D040KD	40	56	68	(61-75)	135	1,000	500	0.10	17.00
PV14D050KD	50	65	82	(74-90)	135	4,500	2,500	0.60	22.00
PV14D060KD	60	85	100	(90-110)	165	4,500	2,500	0.60	28.00
PV14D075KD	75	100	120	(108-132)	200	4,500	2,500	0.60	32.00
PV14D095KD	95	125	150	(135-165)	250	4,500	2,500	0.60	44.00
PV14D130KD	130	170	200	(185-225)	340	4,500	2,500	0.60	57.00
PV14D150KD	150	200	240	(216-264)	395	4,500	2,500	0.60	67.00
PV14D250KD	250	320	390	(351-429)	650	4,500	2,500	0.60	120.00
PV14D275KD	275	350	430	(387-473)	710	4,500	2,500	0.60	132.00
PV14D320KD	320	418	510	(459-561)	842	4,500	2,500	0.60	148.00
PV14D385KD	385	505	620	(558-682)	1,025	4,500	2,500	0.60	164.00
PV14D460KD	460	615	750	(685-825)	1,240	4,500	2,500	0.60	180.00
PV14D510KD	510	670	820	(738-902)	1,355	4,500	2,500	0.60	188.00
PV14D550KD	550	745	910	(819-1001)	1,500	4,500	2,500	0.60	204.00
PV14D680KD	680	895	1100	(990-1210)	1,815	4,500	2,500	0.60	248.00
PV20D060KD	60	85	100	(90-110)	165	6,500	4,000	1.00	56.00
PV20D130KD	130	170	200	(185-225)	340	6,500	4,000	1.00	114.00
PV20D150KD	150	200	240	(216-264)	395	6,500	4,000	1.00	134.00
PV20D250KD	250	320	390	(351-429)	650	6,500	4,000	1.00	240.00
PV20D275KD	275	350	430	(387-473)	710	6,500	4,000	1.00	264.00
PV20D320KD	320	418	510	(459-561)	842	6,500	4,000	1.00	296.00
PV20D460KD	460	615	750	(675-825)	1,240	6,500	4,000	1.00	360.00
PV20D510KD	510	670	820	(738-902)	1,355	6,500	4,000	1.00	376.00
PV20D550KD	550	745	910	(819-1001)	1,500	6,500	4,000	1.00	408.00
PV20D680KD	680	895	1100	(990-1210)	1,815	6,500	4,000	1.00	496.00

- The clamping voltage from 11 VRMS to 40 VRMS is tested with current 2.5A, 5A, 10A & 25A for Series 7, 10, 14 & 20 respectively.
- Other Voltage Ratings are available on request.
- Manufactured as per IEC 1051-1,2.
- GPEL reserves the right to change the information here in without prior notice.



METAL OXIDE VARISTORS

Metal oxide varistor (MOV) is a voltage dependent resistor with symmetrical voltage current characteristics that is designed to protect all kinds of electronic devices or elements from switching and induced lightning surges. Its non linear exponent characteristic with broad using range and mass production is gradually being used by various level of electric engineering.

FEATURES

- Fast response time.
- Excellent voltage ratio.
- Low standby power and no follow on current.
- High performance in surge current handling capability.
- High performance in clamping voltage characteristics.
- Low leakage current.
- Wide voltage & energy ratio.

APPLICATIONS

- IC. Diode, transistor, thyristor, triac, and other semiconductor protection.
- Surge protection in communication, measuring and controller electronics.
- Relay and electromagnetic valve surge absorption.
- Suppression of main borne transients in consumer & industrial electronics.
- Surge protection in electronic home appliances and gas and petroleum appliances.
- Suppression of internally generated spikes in electronics circuit.

DEFINITIONS

- (1) Varistor voltage : The varistor voltage is the voltage across the varistor measured at a specified current I_c (0.1mA or 1.0mA) of specified duration.
- (2) Maximum allowable voltage : The Maximum allowable voltage corresponds to the rest state of the varistor. The rest state voltage offers a low leakage current in order to limit the power consumption of the protected device and not to disturb the circuit to be protected.
- (3) Maximum clamping Voltage : Maximum clamping voltage is the maximum voltage V_p between two terminals with the specified standard impulse current I_p (8x 20 Micro sec). The voltage value is an indication on the protective function of the varistor.
- (4) Withstanding surge current : Withstanding surge current is the maximum peak current for the varistor with the specified standard impulse current (8x20 Micro sec.) applied one time or two times and corresponding to a permissible variation of 10% in the varistor voltage change.
- (5) Energy : Maximum energy from one or a burst of pulses. It is the value within the varistor change of $\pm 10\%$ when one impulse of 10x1000 Micro sec. is applied.
 $E = K \times V_m I_m \times T$,
E: Energy K: Constant = 1.4
 V_m : Max. clamping voltage at I_m . T : Duration of surge current (1000 Micro sec.)
 I_m : Max. allowable single surge current of 10x1000 Micro sec.
- (6) Rated power : The maximum power that can be applied within the specified ambient temperature.
- (7) Capacitance : The capacitance of varistor is the reference value measured between the varistor terminals at specified frequency.

SOURCE OF SURGE VOLTAGE

- Direct lightning surges.
- From magnetic induction.
- Surge voltage by switching operation.
- Surge voltage by grounding fault.
- Induced lightning surges.
- From electrostatic induction.

SELECTION PROCEDURE OF MOV

- 1 - Identify the operating AC/DC voltage
- 2 - Select varistor operating voltage (AC/DC) about 10-20% higher than input voltage to allow line fluctuations.
3. MOV diameter be selected based on expected maximum surge energy.
4. Ensure the clamping voltage is sufficient to protect your system.



PLANT VIEW

GUJARAT POLY ELECTRONICS LIMITED (GPEL), Formerly Known as GUJARAT POLY-AVX ELECTRONICS LTD. has been promoted jointly by Polychem Ltd. and Gujarat Industrial Investment Corporation Limited (GIIC).

POLYCHEM LIMITED is a pioneer in the production of Plastics in India.

GPEL manufactures Multilayer Ceramic Capacitors in Chip and Leaded (Radial & Axial) configurations, Single Layer Ceramic Capacitors. Capacitors are manufactured on highly sophisticated automatic machines.

GPEL standards are set to meet the challenging and steadily increasing demands of the Electronics industry, with the concept of Total Quality Management.

GPEL Capacitors are approved by C-DOT, ITI, RDSO and major OEM's.

GUJARAT POLY ELECTRONICS LTD.

(Formerly Known as GUJARAT POLY-AVX ELECTRONICS LTD.)

PLANT & REGD. OFFICE
B-17/18, GANDHINAGAR
ELECTRONIC ESTATE,
GANDHINAGAR - 382 024.
PHONE : 079 - 23287162 / 23287163
E-mail : zhl@kilachand.com

HEAD OFFICE
7, JAMSHEDJI TATA ROAD,
CHURCHGATE RECLAMATION,
MUMBAI - 400 020.
PHONE : 022 - 22820048.
FAX : 022 - 22850606.
E -mail : zhl@kilachand.com
: vkp@kilachand.com

www.gpelindia.com

NEW DELHI
306, 3rd Floor,
Competent House, Middle Circle,
Connaught Place, New Delhi - 110001,
Tel No. - 011-23716843, 23350846
E-mail : rms@kilachand.com

BANGALORE
"SHIVA MANJU" # 2359,
1ST - C, MAIN ROAD, RPC LAY-OUT,
VIJAYANAGAR, 2ND STAGE,
BANGALORE - 580040.
PHONE : 080 - 23104208
FAX : 080 - 23100238
E -mail : bnl@kilachand.com