

## MOV & TPMOV (Thermal-Runaway Protective MOV Module)

A grayscale photograph of a city skyline at night, with several bright lightning bolts striking down from a dark, stormy sky. The city lights are visible in the foreground and middle ground.

# SPD (Surge Protective Devices) - Component MOVs : 34S Thermal-Runaway Protective MOV Module



# PRIMESOLUTION

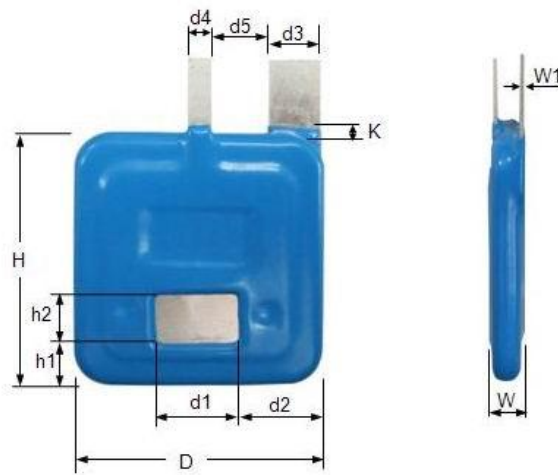
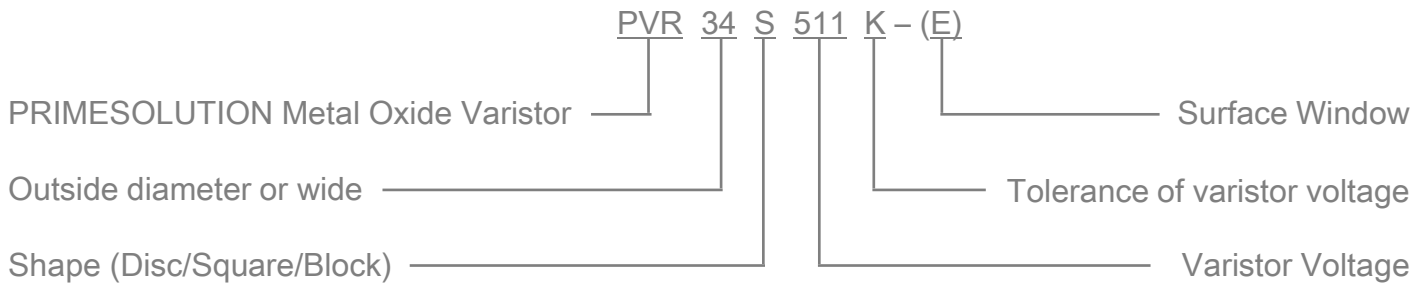
Total Solution of Lightning Protection & Power Quality

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# MOV

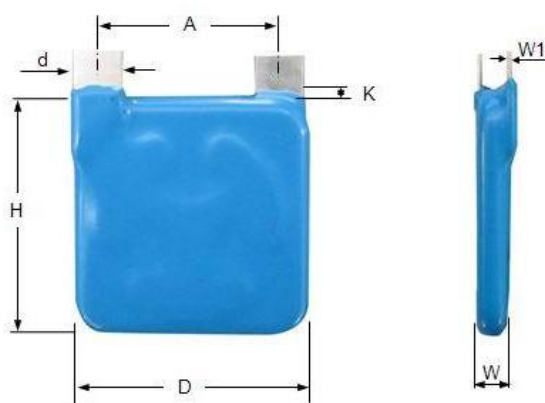
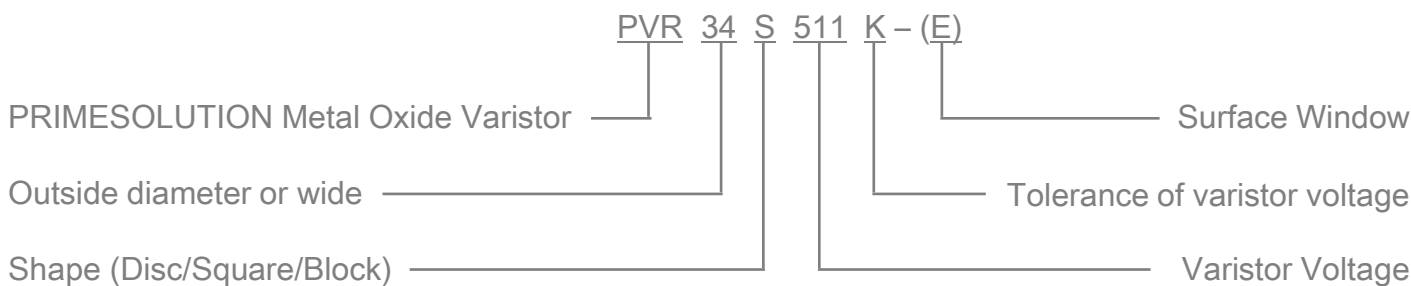
## Type designation



Model No.	D	H	W	d1	d2	d3	d4	d5	h1	h2	w1	k
	Max			±0.5	±0.5			±0.5	±0.5	±0.5		
PVR34S241K-E	34	34.5	3.7	11	11.5	7	3	7.5	6	6.5	0.5	≤3.0
PVR34S271K-E	34	34.5	3.9	11	11.5	7	3	7.5	6	6.5	0.5	≤3.0
PVR34S391K-E	34	34.5	4.8	11	11.5	7	3	7.5	6	6.5	0.5	≤3.0
PVR34S511K-E	34	34.5	5.5	11	11.5	7	3	7.5	6	6.5	0.5	≤3.0
PVR34S621K-E	34.5	35	6.2	11	11.5	7	3	7.5	6	6.5	0.5	≤3.0
PVR34S681K-E	34.5	35	6.2	11	11.5	7	3	7.5	6	6.5	0.5	≤3.0
PVR34S821K-E	34.5	35	6.2	11	11.5	7	3	7.5	6	6.5	0.5	≤3.0
PVR34S911K-E	34.5	35	6.5	11	11.5	7	3	7.5	6	6.5	0.5	≤3.0

# MOV

## Type designation



Model No.	D	H	W	A	d	w1	k
	Max			±1.0			
PVR34S241K-	34	34.5	3.9	25.4	7	0.5	≤3.0
PVR34S271K-	34	34.5	4.8	25.4	7	0.5	≤3.0
PVR34S391K-	34	34.5	5.5	25.4	7	0.5	≤3.0
PVR34S511K-	34.5	35	6.2	25.4	7	0.5	≤3.0
PVR34S621K-	34.5	35	6.2	25.4	7	0.5	≤3.0
PVR34S681K-	34.5	35	6.2	25.4	7	0.5	≤3.0
PVR34S821K-	34.5	35	6.5	25.4	7	0.5	≤3.0
PVR34S911K-	34.5	35	8.0	25.4	7	0.5	≤3.0

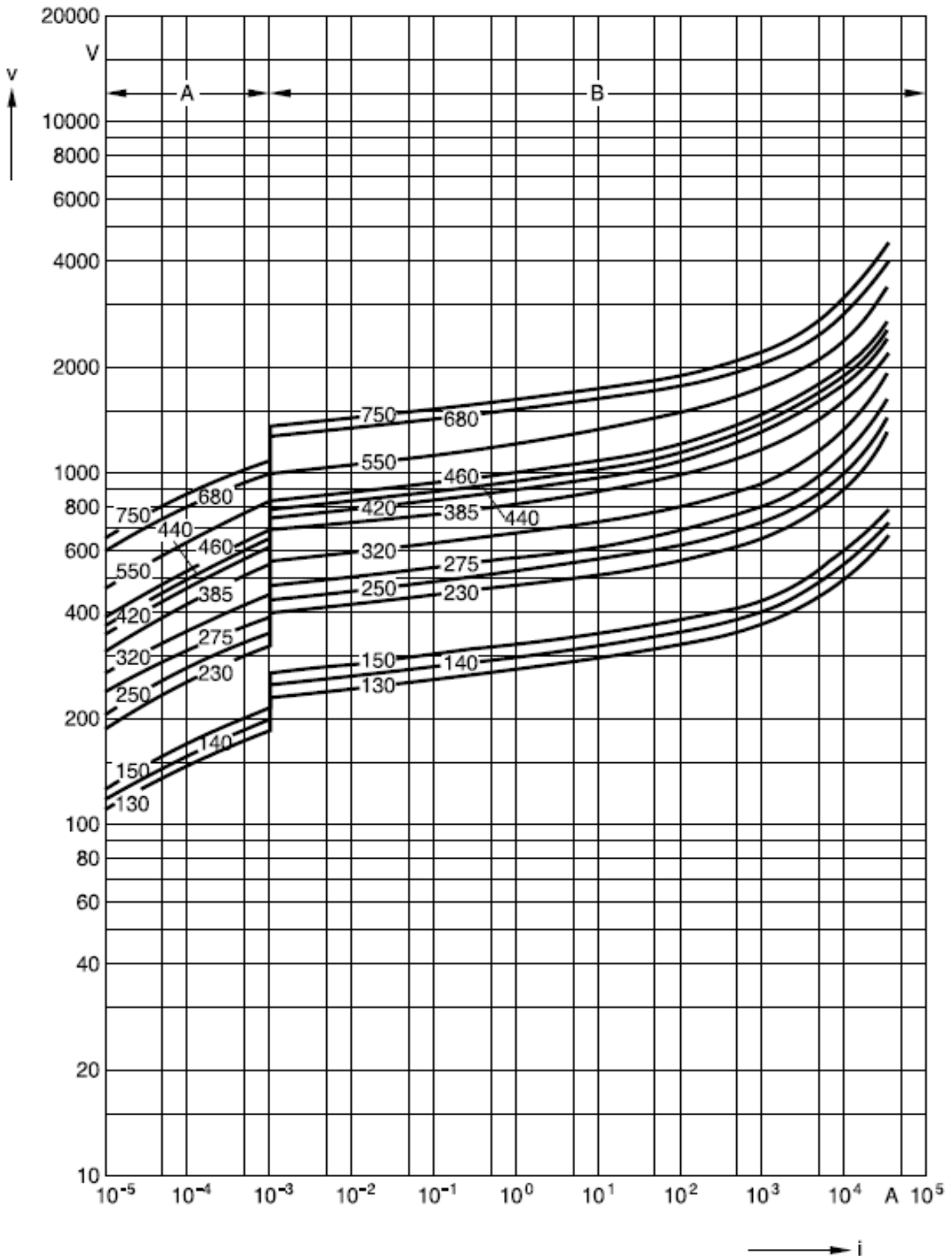
# MOV

## Electric specification

Model Number 34x34 (mm)	Maximum Allowable Voltage		Varistor Voltage		Clamping voltage (max.)		maximum Peak Current (8/20 $\mu$ s)		Maximum Energy (JOULE)	Rated Power	Typical Capacitance (Reference)
	A.C. rms	DC	V1.0mA (V)		VC	IP	In. (10 time)	I max	10/1000		W
	(V)	(V)	min.	max.	(V)	(A)	(KA)		$\mu$ s		(pf)
34S330K	20	26	30	37	65	60	6	12	67	0.30	50000
34S390K	25	31	35	44	77	60			78		42000
34S470K	30	38	42	52	93	60			96		35000
34S560K	35	45	50	63	110	60	10	20	115	0.30	29500
34S680K	40	56	61	75	135	60			136		24200
34S820K	50	65	74	90	135	300	15	30	156	1.40	17950
34S101K	60	85	90	110	165	300			195		15000
34S111K	66	93	99	121	182	300			215		13400
34S121K	75	100	108	132	200	300			235		12200
34S131K	82	108	117	143	216	300	20	40	256	1.40	11350
34S151K	95	125	135	165	250	300			296		10000
34S181K	115	150	162	198	300	300			350		8250
34S201K	130	170	185	225	340	300			400		6750
34S221K	140	180	198	242	360	300			450		6400
34S241K	150	200	216	264	395	300			480		5650
34S271K	175	225	243	297	455	300			540		5100
34S301K	190	250	270	330	500	300			600		4510
34S331K	210	275	297	363	550	300	25	50	656	1.40	4150
34S361K	230	300	324	396	595	300			745		3750
34S391K	250	320	351	429	650	300			830		3500
34S431K	275	350	387	473	710	300			920		2950
34S471K	300	385	423	517	775	300			1000		2880
34S511K	320	415	459	561	845	300			1060		2650
34S561K	350	460	504	616	925	300			1150		2450
34S621K	385	505	558	682	1025	300			1250		2200
34S681K	420	560	612	748	1120	300	1250	2000			
34S751K	460	615	675	825	1240	300	20	40	1280	1.40	1820
34S781K	485	640	702	858	1290	300			1350		1750
34S821K	510	670	738	902	1355	300			1395		1650
34S911K	550	745	819	1001	1500	300			1475		1500
34S951K	575	760	855	1045	1570	300			1485		1430
34S102K	625	825	900	1100	1650	300			1550		1350
34S112K	680	895	990	1210	1815	300			1700		1230
34S122K	750	980	1150	1320	1980	300			1750		1135
34S142K	850	1120	1315	1540	2310	300			1750		970
34S152K	930	1220	1450	1650	2475	300			1815		900
34S162K	1000	1320	1550	1760	2640	300	2000	840			

MOV

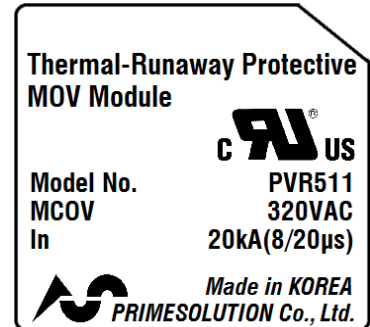
Electric specification



## TPMOV (Thermal-Runaway Protective MOV Module)

### Overview

#### SPD (Surge Protective Devices) – Component Thermal-Runaway Protective MOV Module



#### Description

- Innovative Surge Protection Technology
- Combined with Complete Recognition & Fast-Acting Thermal-Runaway Disconnecter
- Remote Alarm Indication Built-In
- MCOV 20V~1000VAC
- $I_{max}$  12 ~ 40kA (8/20μs),  $I_n$  6 ~ 20kA (8/20μs)

#### Approvals

- UL1449 3<sup>rd</sup> Edition
- CSA
- IEC 61643-11



#### Application

- PCB Mount Application for High Quality SPDs(Surge Protective Devices) / TVSS(Transient Voltage Surge Suppressors) Design
- Power Line Protection for Various Electrical Facilities' Control Board

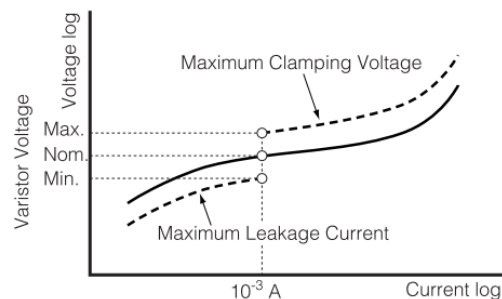
#### Type designation

- PVR 511
  - Operating Voltage Category : Rated / Maximum continuous
  - PRIMESOLUTION Metal Oxide Varistor

## TPMOV (Thermal-Runaway Protective MOV Module)

### Electrical Rating

- Varistor elements without plastic housing (suitable for soldering) are available upon request



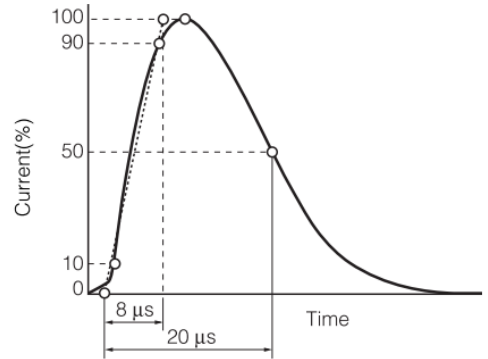
Part No.	Maximum Allowable Voltage		Varistor Voltage		Clamping voltage(max.)		Discharge Current (8/20 $\mu$ s)		Wmax	Pmax
	AC.rms	DC	Min	Max	VC	IP	I <sub>n</sub>	I <sub>max</sub>	10/1000 $\mu$ s	
	( V )	( V )	V 1.0mA( V )		( V )	( A )	( KA )		( J )	( W )
PVR 330	20	26	30	37	65	60	6	12	67	0.30
PVR 390	25	31	35	44	77	60			78	
PVR 470	30	38	42	52	93	60			96	
PVR 560	35	45	50	63	110	60	10	20	115	0.30
PVR 680	40	56	61	75	135	60			136	
PVR 820	50	65	74	90	135	300	15	30	156	1.40
PVR 101	60	85	90	110	165	300			195	
PVR 111	66	93	99	121	182	300			215	
PVR 121	75	100	108	132	200	300			235	
PVR 131	82	108	117	143	216	300	20	40	256	1.40
PVR 151	95	125	135	165	250	300			296	
PVR 181	115	150	162	198	300	300			350	
PVR 201	130	170	185	225	340	300			400	
PVR 221	140	180	198	242	360	300			450	
PVR 241	150	200	216	264	395	300			480	
PVR 271	175	225	243	297	455	300	540	25	50	1.40
PVR 301	190	250	270	330	500	300	600			
PVR 331	210	275	297	363	550	300	656			
PVR 361	230	300	324	396	595	300	745			
PVR 391	250	320	351	429	650	300	830			
PVR 431	275	350	387	473	710	300	920			
PVR 471	300	385	423	517	775	300	1000			
PVR 511	320	415	459	561	845	300	1060			
PVR 561	350	460	504	616	925	300	1150	20	40	1.40
PVR 621	385	505	558	682	1025	300	1250			
PVR 681	420	560	612	748	1120	300	1250			
PVR 751	460	615	675	825	1240	300	1280			
PVR 781	485	640	702	858	1290	300	1350			
PVR 821	510	670	738	902	1355	300	1395			
PVR 911	550	745	819	1001	1500	300	1475			
PVR 951	575	760	855	1045	1570	300	1485			
PVR 102	625	825	900	1100	1650	300	1550			
PVR 112	680	895	990	1210	1815	300	1700			
PVR 122	750	980	1150	1320	1980	300	1750			
PVR 142	850	1120	1315	1540	2310	300	1750			
PVR 152	930	1220	1450	1650	2475	300	1815			
PVR 162	1000	1320	1550	1760	2640	300	2000			

# TPMOV (Thermal-Runaway Protective MOV Module)

## Mechanical Operating

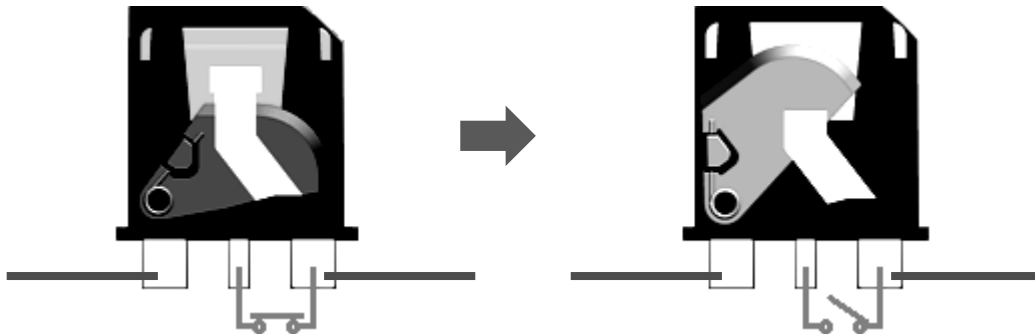
### General specification

- Maximum Discharge Current ( $I_{max}$ ) : 40kA (8/20 $\mu$ s)
- Nominal Discharge Current ( $I_n$ ) : 20kA (8/20 $\mu$ s)
- Temperature : Operating - 25 ~ + 85°C  
Storage - 25 ~ + 110°C
- Response Time : < 25ns

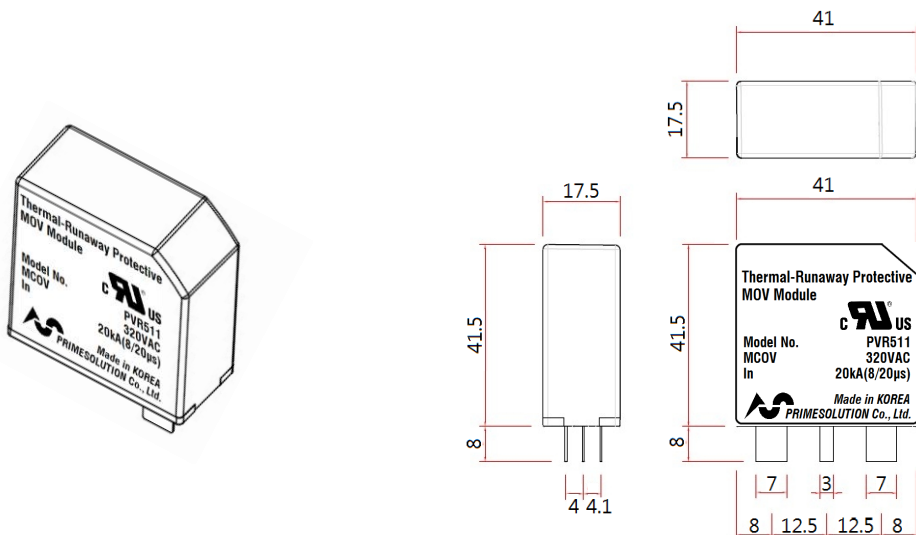


### Construction

- Complete thermal response for abnormal overvoltage
- Physical /Electrical Isolation : Indication signal circuit can be designed
- Isolation knife / Reasonable spring /



### Dimension



(Unit : mm)