METAL OXIDE VARISTOR (MOV)

How to Order

SR	241	K	10	D	S	40	X
Type code	**Varistor Voltage**	**Tolerance**	**Disk Size Code**	**Disk Type**	**Lead Type or Taping Code**	**Lead Cutting**	**Special Request**
SR: Walsin Varistor	(DC volt) (From 180 to 112) Two significant digits Followed by no. of zeros 180=18volt 101=100volt 102=1000volt	J:+/-5% K:+/-10%	05 : 5mm 07 : 7mm 10 : 10mm 14 : 14mm 18 : 18mm 20 : 20mm 25 : 25mm	D: Standard disk type E : High energy disk type V : Super high energy series	S : Straight Lead L : Inline Crimped O: Outward Crimped I : Inward Crimped Taping Code : Please refer to page 12 for taping codes.	Lead Cutting for Bulk Packing: 40=4.0±1.0mm 65=6.5±1.0mm P1=11±1.0mm No code ≥ 25mm	• Special lead cutting tolerance • Special lead spacing (Please see below) • Special varistor voltage range...etc

Varistor Special Request

F: 0.5mm lead length tolerance for short lead cutting

X: 7.5mm lead spacing for 20D and 20E (lead wire is 0.8mm diameter)

Z: 5mm lead spacing for 10D(E), 14D(E)

H: Special request

Varistor Part Number Examples :

Ex.1. SR241K07DIT14: 7mm, 241K, inward crimped lead and reel taped.

Ex.2. SR361K10DI45: 10mm, 361K, bulk packing, inward crimped lead, lead cutting length 4.5 ±1.0mm

Ex.3. SR621K20EOP2: 20mm, 621K, high energy, bulk, outward crimped lead, lead spacing 12mm±1.0mm.

Ex.4. SR271K20DO65X: 20mm, 271K, bulk, outward crimped lead, lead spacing 7.5 mm, lead cutting 6.5 ± 1.0mm

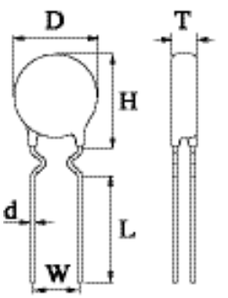
Ex.5. SR241K10DS40F: 10mm, 241K, bulk, straight lead, lead cutting 4.0 ± 0.5mm.

Dimensions Quick Reference : If specific item's dimensions, please contact sales

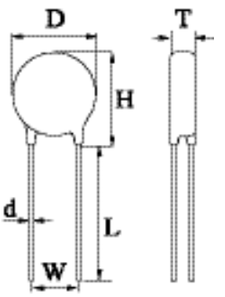
Series	5D,5E	7D,7E	10D,10E	14D,14E	18E	20D,20E	25D
Dmax	7.0	9.5	14.0	17.5	21.0	24.0	28.5
d*	0.6	0.6	0.8	0.8	0.8	1.0	1.0
W**	5.0	5.0	7.5	7.5	7.5	10.0	12.7
Hmax	10.0	12.0	17.0	20.5	24.0	28.0	34
Tmax	4.9	4.9	8.5	8.5	9.0	9.0	9.5

*±0.02 **±1.0 (Unit: mm)

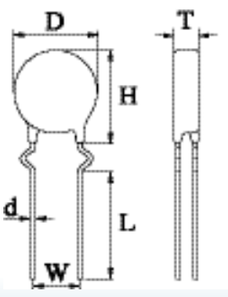
Inward Crimped



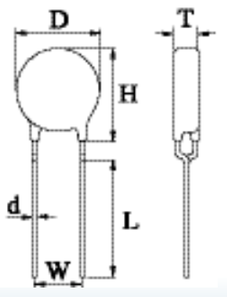
Straight Lead



Outward Crimped



Inline Crimped



Remark:
The lead length (L) is 25mm minimum unless requested by customers; please refer to lead cutting code in "How to Order".

METAL OXIDE VARISTOR (MOV)

Characteristics

- High performance transient voltage suppression
- Short response time to surge voltage
- Low standby power dissipation
- Excellent clamping characteristics
- High performance withstanding surge currents
- High reliability
- UL, CSA, VDE and CQC recognized

Applications

- Surge protection in:
  - Consumer electronics
  - Industrial electronics
  - Communication electronics
  - Measuring and controlling systems
  - Electronic home appliances
- Protection against surges induced by lighting striking incoming power lines.
- Suppression of surges caused by switching inductive loads such as transformers, relays and coils.
- Protection of rectification diodes, SCRs, power transistors, semiconductor devices, etc.

Definition of Varistor Terms

Rated RMS Voltage, Rated DC Voltage :
The maximum designated values of power system voltage that may be applied continuously between the terminals of a device.

Varistor Voltage :
Test characteristic that is used to classify varistors by type.
A test current of 1mA DC is typically used to determine varistor voltage classification type. Varistor voltage clamping characteristics can be defined at various test levels.

Rated Peak Single Pulse Transient Current :
Maximum surge current, 8/20 µs waveform which a varistor is rated to withstand for a single surge.

Rated Single Pulse Transient Energy :
Maximum allowable energy for a single impulse (see specified waveforms).

Maximum Clamping Voltage :
Measured peak voltage across the device terminals when a current impulse of specified amplitude and waveform is conducted through the varistor.

Typical Capacitance :
Typical capacitance values are measured at a test frequency of 1kHz. Capacitance values are only for reference purpose only, not subject to outgoing inspection.

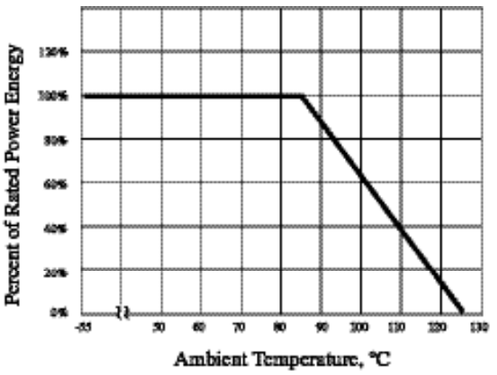
General Characteristics

Storage Temperature : –55˚C to +125˚C
Operating Surface Temperature : 125˚C
Operating Ambient Temperature : –55˚C to +85˚C (without derating)
Maximum Voltage-Temperature Coefficient : < –0.05% / ˚C
Insulation Resistance : 1000 Mega-ohm minimum
Hi Pot (Leads To Case, 1 Min.) : 2500 VDC
Typical Response Time : <15 Nero-seconds
Epoxy Rating : 94V-0
Current / Energy Derating (>85˚C) : –2.5% / ˚C
DC Leakage Current : 200µA maximum (at rated DC working voltage)
Solderability : MIL-STD-202F
Power Dissipation Ratings(P, in-watts) :

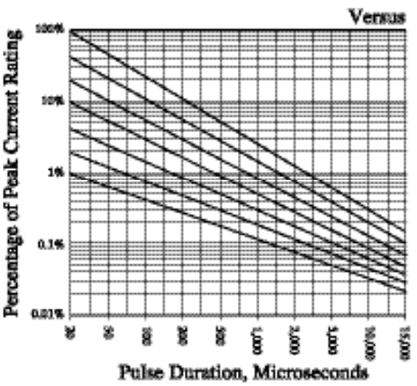
Disc Size	11Vac~40Vac	50Vac~680Vac
5mm	0.01	0.15
7mm	0.02	0.25
10mm	0.05	0.4
14mm	0.1	0.6
18mm	—	0.8
20mm	0.2	1.0
25mm	—	1.2
32mm	—	1.6
34mm(single)	—	2.1
34mm(dual)	—	2.73
40mm	—	2.1
53mm	—	2.5

All definitions are according to IEEE specifications C62.33.

Energy Derating Versus Temperature



Peak Current Per Pulse Versus Pulse Duration



Number of Pulses on Order From 100 % Respectively :

1 Pulse
10 Pulses
10^2 Pulses
10^3 Pulses
10^4 Pulses
10^5 Pulses
10^6 Pulses

VARISTORS – 5D SERIES

Part Number	Maximum Allowable Voltage		Varistor Voltage		Withstanding Surge Current (8/20 µs)	Max.Clamping Voltage (8/20 µs)		Maximum Engergy		Typical Capacitance	Safety Approval
	ACrms	DC	DC Volts		1 time	Vc	Ip	2ms	10/1000µs	@1kHz	
	Volts	Volts	Min	Max	Amps	Volts	Amps	Joules		PF	
SR180K05D☐☐	11	14	16	20	100	36	1	0.4	0.6	1500	○△ ◇
SR220K05D☐☐	14	18	20	24	100	43	1	0.6	0.8	1260	○△ ◇
SR270K05D☐☐	17	22	24	30	100	53	1	0.7	0.9	1050	○△ ◇
SR330K05D☐☐	20	26	30	36	100	65	1	0.9	1.2	850	○△ ◇
SR390K05D☐☐	25	31	35	43	100	77	1	1.1	1.3	600	○△ ◇
SR470K05D☐☐	30	38	42	52	100	93	1	1.4	1.6	500	○△ ◇
SR560K05D☐☐	35	45	50	62	100	110	1	1.5	1.9	400	○△ ◇
SR680K05D☐☐	40	56	61	75	100	135	1	1.8	2.3	360	○△ ◇
SR820K05D☐☐	50	66	74	90	400	135	5	2.4	3.0	350	○△ ◇
SR101K05D☐☐	60	85	90	110	400	165	5	2.4	3.5	320	○△ ◇
SR121K05D☐☐	75	102	108	132	400	200	5	3.0	5.0	250	○△ ◇
SR151K05D☐☐	95	127	135	165	400	250	5	3.5	5.5	180	○△ ◇
SR181K05D☐☐	120	160	170	207	400	320	5	4.2	8.0	155	○△ ☆◇
SR201K05D☐☐	130	175	185	225	400	340	5	5.0	8.5	140	○△☐☆◇
SR221K05D☐☐	140	180	198	242	400	360	5	6.0	9.0	125	○△☐☆◇
SR241K05D☐☐	150	200	216	264	400	395	5	6.5	10.0	115	○△☐☆◇
SR271K05D☐☐	180	230	255	311	400	475	5	7.5	11.0	105	○△☐☆◇
SR301K05D☐☐	195	250	270	330	400	525	5	8.0	11.5	95	○△☐☆◇
SR331K05D☐☐	210	275	297	363	400	540	5	8.5	11.7	85	○△☐☆◇
SR361K05D☐☐	230	300	324	396	400	595	5	9.0	13.0	80	○△☐☆◇
SR391K05D☐☐	250	330	351	429	400	650	5	10	15	75	○△☐☆◇
SR431K05D☐☐	275	370	387	473	400	710	5	11	16	65	○△☐☆◇
SR471K05D☐☐	300	385	423	517	400	775	5	13	19	55	○△☐☆◇
SR511K05D☐☐	320	420	459	561	400	865	5	15	21	39	○△☐
SR561K05D☐☐	360	470	522	638	400	960	5	17	25	36	○△☐☆
SR621K05D☐☐	390	505	558	682	400	1040	5	19	27	33	○△☐☆
SR681K05D☐☐	420	560	612	748	400	1120	5	21	30	30	○△☐☆

Remark :

1. ☐☐ : : Suffix adding; please refer **"How to Order"** for details.
2. All parts approved as follows:
(1) ○ : **UL 1449** recognized (File # E172311).
(2) △ : **UL 497B** recognized (File # E199593).
(3) ☐ : **UL 1414** recognized (File # E182369).
(4) ☆ : **CSA** 22.2 #1 certified (File # LR109496-1 and LR109496-4).
(5) ◇ : **VDE**/CECC 42000/42200/42201, IEC 61051-1/61051-2/61051-2-2 (Certificate # 5932, 40010090, 40003435).
(6) **CQC** recognized for all part numbers (CQC04001010926).
3. Varistor voltage: 5ø series measured at @ 1mA DC pulse current.

VARISTORS – 7D SERIES

Part Number	Maximum Allowable Voltage		Varistor Voltage		Withstanding Surge Current (8/20 μs)	Max.Clamping Voltage (8/20 μs)		Maximum Engergy		Typical Capacitance	Safety Approval
	ACrms	DC	DC Volts		1 time	Vc	Ip	2ms	10/1000μs	@1kHz	
	Volts	Volts	Min	Max	Amps	Volts	Amps	Joules		PF	
SR180K07D□□	11	14	16	20	250	36	2.5	0.8	1.0	2900	○△ ◇
SR220K07D□□	14	18	20	24	250	43	2.5	0.9	1.3	2400	○△ ◇
SR270K07D□□	17	22	24	30	250	53	2.5	1.0	1.4	1800	○△ ◇
SR330K07D□□	20	26	30	36	250	65	2.5	1.2	1.7	1500	○△ ◇
SR390K07D□□	25	31	35	43	250	77	2.5	1.5	2.1	1230	○△ ◇
SR470K07D□□	30	38	42	52	250	93	2.5	1.8	2.5	950	○△ ◇
SR560K07D□□	35	45	50	62	250	110	2.5	2.2	3.1	890	○△ ◇
SR680K07D□□	40	56	61	75	250	135	2.5	2.5	3.8	850	○△ ◇
SR820K07D□□	50	66	74	90	1200	135	10	3.5	5.5	830	○△ ◇
SR101K07D□□	60	85	90	110	1200	165	10	4.0	6.5	730	○△ ◇
SR121K07D□□	75	102	108	132	1200	200	10	5.0	7.8	570	○△ ◇
SR151K07D□□	95	127	135	165	1200	250	10	6.5	9.7	400	○△◇
SR181K07D□□	120	160	170	207	1200	300	10	8.8	12.0	305	○△ ☆◇
SR201K07D□□	130	175	185	225	1200	340	10	10.0	13.0	275	○△□☆◇
SR221K07D□□	140	180	198	242	1200	360	10	11.0	14.0	250	○△□☆◇
SR241K07D□□	150	200	216	264	1200	395	10	11.0	16.0	230	○△□☆◇
SR271K07D□□	180	230	255	311	1200	455	10	12.0	18.0	205	○△□☆◇
SR301K07D□□	195	250	270	330	1200	505	10	13.0	19.0	185	○△□☆◇
SR331K07D□□	210	275	297	363	1200	540	10	14.0	20.0	170	○△□☆◇
SR361K07D□□	230	300	324	396	1200	595	10	15.0	25.0	155	○△□☆◇
SR391K07D□□	250	330	351	429	1200	650	10	17.0	26.0	145	○△□☆◇
SR431K07D□□	275	370	387	473	1200	710	10	20.0	28.0	130	○△□☆◇
SR471K07D□□	300	385	423	517	1200	775	10	21.0	30.0	115	○△□☆◇
SR511K07D□□	320	420	459	561	1200	850	10	23.0	32.0	88	○△□☆◇
SR561K07D□□	360	470	522	638	1200	960	10	27.0	39.0	85	○△□☆◇
SR621K07D□□	390	505	558	682	1200	1040	10	29.0	43.0	82	○△□☆◇
SR681K07D□□	420	560	612	748	1200	1120	10	32.0	45.0	78	○△□☆◇

Remark :

1. □□ : Suffix adding; please refer **"How to Order"** for details.
2. All parts approved as follows:

(1) ○: **UL 1449** recognized (File # E172311).

(2) △: **UL 497B** recognized (File # E199593).

(3) □: **UL 1414** recognized (File # E182369).

(4) ☆: **CSA** 22.2 #1 certified (File # LR109496-1 and LR109496-4).

(5) ◇: **VDE**/CECC 42000/42200/42201, IEC 61051-1/61051-2/61051-2-2 (Certificate # 5932, 40010090, 40003435).

(6) **CQC** recognized for all part numbers (CQC04001010927).

VARISTORS – 10D SERIES

Part Number	Maximum Allowable Voltage		Varistor Voltage		Withstanding Surge Current (8/20 μs)	Max.Clamping Voltage (8/20 μs)		Maximum Engergy		Typical Capacitance	Safety Approval
	ACrms	DC	DC Volts		1 time	Vc	Ip	2ms	10/1000μs	@1kHz	
	Volts	Volts	Min	Max	Amps	Volts	Amps	Joules		PF	
SR180K10D☐☐	11	14	16	20	500	36	5	1.5	2.1	6000	○△ ◇
SR220K10D☐☐	14	18	20	24	500	43	5	2.0	2.5	5000	○△ ◇
SR270K10D☐☐	17	22	24	30	500	53	5	2.5	3.0	4000	○△ ◇
SR330K10D☐☐	20	26	30	36	500	65	5	3.0	4.0	3500	○△ ◇
SR390K10D☐☐	25	31	35	43	500	77	5	3.5	4.6	3100	○△ ◇
SR470K10D☐☐	30	38	42	52	500	93	5	4.5	5.5	2800	○△ ◇
SR560K10D☐☐	35	45	50	62	500	110	5	5.5	7.0	2400	○△ ◇
SR680K10D☐☐	40	56	61	75	500	135	5	6.5	8.2	2100	○△ ◇
SR820K10D☐☐	50	66	74	90	2500	135	25	8.0	12.0	1600	○△ ◇
SR101K10D☐☐	60	85	90	110	2500	165	25	10.0	15.0	1400	○△ ◇
SR121K10D☐☐	75	102	108	132	2500	200	25	12.0	18.0	1200	○△ ◇
SR151K10D☐☐	95	127	135	165	2500	250	25	16.0	22.0	1100	○△ ◇
SR181K10D☐☐	120	160	170	207	2500	300	25	18.5	27.5	700	○△ ☆◇
SR201K10D☐☐	130	175	185	225	2500	340	25	20.0	30.0	640	○△☐☆◇
SR221K10D☐☐	140	180	198	242	2500	360	25	23.0	32.0	600	○△☐☆◇
SR241K10D☐☐	150	200	216	264	2500	395	25	25.0	35.0	560	○△☐☆◇
SR271K10D☐☐	180	230	255	311	2500	455	25	30.0	40.0	500	○△☐☆◇
SR301K10D☐☐	195	250	270	330	2500	505	25	32.0	42.5	450	○△☐☆◇
SR331K10D☐☐	210	275	297	363	2500	540	25	33.5	44.5	415	○△☐☆◇
SR361K10D☐☐	230	300	324	396	2500	595	25	35.0	47.0	380	○△☐☆◇
SR391K10D☐☐	250	330	351	429	2500	650	25	40.0	60.0	350	○△☐☆◇
SR431K10D☐☐	275	370	387	473	2500	710	25	45.0	65.0	310	○△☐☆◇
SR471K10D☐☐	300	385	423	517	2500	775	25	46.0	70.0	280	○△☐☆◇
SR511K10D☐☐	320	420	459	561	2500	840	25	47.0	71.0	260	○△☐☆◇
SR561K10D☐☐	360	470	522	638	2500	910	25	48.0	72.0	240	○△☐☆◇
SR621K10D☐☐	390	505	558	682	2500	1025	25	49.0	73.0	150	○△☐☆◇
SR681K10D☐☐	420	560	612	748	2500	1120	25	50.0	74.0	130	○△☐☆◇
SR751K10D☐☐	460	615	675	825	2500	1240	25	51.0	75.0	120	○△☐☆◇
SR781K10D☐☐	485	640	702	858	2500	1290	25	52.0	80.0	120	○△☐☆◇
SR821K10D☐☐	510	675	738	902	2500	1350	25	55.0	85.0	110	○△☐☆◇
SR911K10D☐☐	550	745	819	1001	2500	1400	25	60.0	93.0	90	○ ☐☆◇
SR102K10D☐☐	625	825	900	1100	2500	1650	25	65.0	102	80	○ ☐☆◇
SR112K10D☐☐	680	895	962	1175	2500	1815	25	70.0	115	70	○ ☐☆◇

Remark :

1. ☐☐ : Suffix adding; please refer **"How to Order"** for details.
2. All parts approved as follows:

(1) ○ : **UL 1449** recognized (File # E172311).

(2) △ : **UL 497B** recognized (File # E199593).

(3) ☐ : **UL 1414** recognized (File # E182369).

(4) ☆ : **CSA** 22.2 #1 certified (File # LR109496-1 and LR109496-4).

(5) ◇ : **VDE**/CECC 42000/42200/42201, IEC 61051-1/61051-2/61051-2-2 (Certificate # 5932, 40010090, 40003435).

(6) **CQC** recognized for all part numbers (CQC04001010928).

VARISTORS – 14D SERIES

Part Number	Maximum Allowable Voltage		Varistor Voltage		Withstanding Surge Current (8/20 μs)	Max.Clamping Voltage (8/20 μs)		Maximum Engergy		Typical Capacitance	Safety Approval
	ACrms	DC	DC Volts		1 time	Vc	Ip	2ms	10/1000μs	@1kHz	
	Volts	Volts	Min	Max	Amps	Volts	Amps	Joules		PF	
SR180K14D☐☐	11	14	16	20	1000	36	10	3.5	4.0	15000	○△ ◇
SR220K14D☐☐	14	18	20	24	1000	43	10	4.0	5.0	12000	○△ ◇
SR270K14D☐☐	17	22	24	30	1000	53	10	5.0	6.0	8500	○△ ◇
SR330K14D☐☐	20	26	30	36	1000	65	10	6.0	7.5	7200	○△ ◇
SR390K14D☐☐	25	31	35	43	1000	77	10	7.0	8.6	6300	○△ ◇
SR470K14D☐☐	30	38	42	52	1000	93	10	8.5	10.0	5500	○△ ◇
SR560K14D☐☐	35	45	50	62	1000	110	10	10.0	11.0	4800	○△ ◇
SR680K14D☐☐	40	56	61	75	1000	135	10	12.0	14.0	4000	○△ ◇
SR820K14D☐☐	50	66	74	90	4500	135	50	15.0	22.0	3300	○△ ◇
SR101K14D☐☐	60	85	90	110	4500	165	50	20.0	30.0	2900	○△ ◇
SR121K14D☐☐	75	102	108	132	4500	200	50	22.0	34.0	2600	○△ ◇
SR151K14D☐☐	95	127	135	165	4500	250	50	30.0	45.0	2000	○△ ◇
SR181K14D☐☐	120	160	170	207	4500	300	50	33	53.0	1400	○△ ☆◇
SR201K14D☐☐	130	175	185	225	4500	340	50	38	60.0	1370	○△☐☆◇
SR221K14D☐☐	140	180	198	242	4500	360	50	40	60.0	1150	○△☐☆◇
SR241K14D☐☐	150	200	216	264	4500	395	50	45	66.0	1060	○△☐☆◇
SR271K14D☐☐	180	230	255	311	4500	455	50	52	72.0	950	○△☐☆◇
SR301K14D☐☐	195	250	270	330	4500	505	50	56	78.0	890	○△☐☆◇
SR331K14D☐☐	210	275	297	363	4500	545	50	63	87.0	800	○△☐☆◇
SR361K14D☐☐	230	300	324	396	4500	595	50	70	98.0	725	○△☐☆◇
SR391K14D☐☐	250	330	351	429	4500	650	50	72	102	665	○△☐☆◇
SR431K14D☐☐	275	370	387	473	4500	710	50	75	115	600	○△☐☆◇
SR471K14D☐☐	300	385	423	517	4500	775	50	80	125	570	○△☐☆◇
SR511K14D☐☐	320	420	459	561	4500	840	50	82	128	530	○△☐☆◇
SR561K14D☐☐	360	470	522	638	4500	910	50	85	139	480	○△☐☆◇
SR621K14D☐☐	390	505	558	682	4500	1025	50	88	142	270	○△☐☆◇
SR681K14D☐☐	420	560	612	748	4500	1120	50	90	142	240	○△☐☆◇
SR751K14D☐☐	460	615	675	825	4500	1240	50	100	143	210	○△☐☆◇
SR781K14D☐☐	485	640	702	858	4500	1290	50	105	148	205	○△☐☆◇
SR821K14D☐☐	510	675	738	902	4500	1350	50	110	157	200	○△☐☆◇
SR911K14D☐☐	550	745	819	1001	4500	1400	50	120	175	175	○ ☐☆◇
SR102K14D☐☐	625	825	900	1100	4500	1620	50	130	190	145	○ ☐☆◇
SR112K14D☐☐	680	895	962	1175	4500	1800	50	140	215	140	○ ☐☆◇

Remark :

1. ☐☐ : Suffix adding; please refer **"How to Order"** for details.
2. All parts approved as follows:

(1) ○ : **UL 1449** recognized (File # E172311).

(2) △ : **UL 497B** recognized (File # E199593).

(3) ☐ : **UL 1414** recognized (File # E182369).

(4) ☆ : **CSA** 22.2 #1 certified (File # LR109496-1 and LR109496-4).

(5) ◇ : **VDE**/CECC 42000/42200/42201, IEC 61051-1/61051-2/61051-2-2 (Certificate # 5932, 40010090, 40003435).

(6) **CQC** recognized for all part numbers (CQC04001010929).

VARISTORS – 20D SERIES

Part Number	Maximum Allowable Voltage		Varistor Voltage		Withstanding Surge Current (8/20 μs)	Max.Clamping Voltage (8/20 μs)		Maximum Engergy		Typical Capacitance	Safety Approval
	ACrms	DC	DC Volts		1 time	Vc	Ip	2ms	10/1000μs	@1kHz	
	Volts	Volts	Min	Max	Amps	Volts	Amps	Joules		PF	
SR180K20D☐☐	11	14	16	20	2000	36	20	10	12	27000	○△ ◇
SR220K20D☐☐	14	18	20	24	2000	43	20	13	15	20000	○△ ◇
SR270K20D☐☐	17	22	24	30	2000	53	20	15	17	15000	○△ ◇
SR330K20D☐☐	20	26	30	36	2000	65	20	22	22	12200	○△ ◇
SR390K20D☐☐	25	31	35	43	2000	77	20	24	26	10000	○△ ◇
SR470K20D☐☐	30	38	42	52	2000	93	20	30	33	9350	○△ ◇
SR560K20D☐☐	35	45	50	62	2000	110	20	35	38	8000	○△ ◇
SR680K20D☐☐	40	56	61	75	2000	135	20	40	43	6800	○△ ◇
SR820K20D☐☐	50	66	74	90	6500	135	100	37	48	5600	○△ ◇
SR101K20D☐☐	60	85	90	110	6500	165	100	38	50	4700	○△ ◇
SR121K20D☐☐	75	102	108	132	6500	200	100	40	55	4100	○△ ◇
SR151K20D☐☐	95	127	135	165	6500	250	100	50	70	3200	○△ ◇
SR181K20D☐☐	120	160	170	207	6500	300	100	60	85	2500	○△ ☆◇
SR201K20D☐☐	130	175	185	225	6500	340	100	70	95	2200	○△☐☆◇
SR221K20D☐☐	140	180	198	242	6500	360	100	75	100	2000	○△☐☆◇
SR241K20D☐☐	150	200	216	264	6500	395	100	82	110	1900	○△☐☆◇
SR271K20D☐☐	180	230	255	311	6500	455	100	90	127	1700	○△☐☆◇
SR301K20D☐☐	195	250	270	330	6500	505	100	100	135	1540	○△☐☆◇
SR331K20D☐☐	210	275	297	363	6500	545	100	110	148	1400	○△☐☆◇
SR361K20D☐☐	230	300	324	396	6500	595	100	120	163	1320	○△☐☆◇
SR391K20D☐☐	250	330	351	429	6500	650	100	130	180	1210	○△☐☆◇
SR431K20D☐☐	275	370	387	473	6500	710	100	140	190	1120	○△☐☆◇
SR471K20D☐☐	300	385	423	517	6500	775	100	150	220	1000	○△☐☆◇
SR511K20D☐☐	320	420	459	561	6500	840	100	152	222	950	○△☐☆◇
SR561K20D☐☐	360	470	522	638	6500	910	100	154	226	900	○△☐☆◇
SR621K20D☐☐	390	505	558	682	6500	1025	100	158	228	770	○△☐☆◇
SR681K20D☐☐	420	560	612	748	6500	1120	100	160	230	700	○△☐☆◇
SR751K20D☐☐	460	615	675	825	6500	1240	100	175	255	640	○△☐☆◇
SR781K20D☐☐	485	640	702	858	6500	1290	100	180	265	590	○△☐☆◇
SR821K20D☐☐	510	675	738	902	6500	1350	100	190	282	510	○△☐☆◇
SR911K20D☐☐	550	745	819	1001	6500	1400	100	215	310	430	○ ☐☆◇
SR102K20D☐☐	625	825	900	1100	6500	1620	100	230	342	380	○ ☐☆◇
SR112K20D☐☐	680	895	962	1175	6500	1800	100	250	383	340	○ ☐☆◇

Remark :

1. ☐☐ : Suffix adding; please refer **"How to Order"** for details.
2. All parts approved as follows:

(1) ○ : **UL 1449** recognized (File # E172311).

(2) △ : **UL 497B** recognized (File # E199593).

(3) ☐ : **UL 1414** recognized (File # E182369).

(4) ☆ : **CSA** 22.2 #1 certified (File # LR109496-1 and LR109496-4).

(5) ◇ : **VDE**/CECC 42000/42200/42201, IEC 61051-1/61051-2/61051-2-2 (Certificate # 5932, 40010090, 40003435).

(6) **CQC** recognized for all part numbers (CQC04001010931).

VARISTORS – 25D SERIES

Part Number	Maximum Allowable Voltage		Varistor Voltage		Withstanding Surge Current (8/20 μs)	Max.Clamping Voltage (8/20 μs)		Maximum Engergy		Typical Capacitance	Safety Approval	
	ACrms	DC	DC Volts		1 time	Vc	Ip	2ms	10/1000μs	@1kHz		
	Volts	Volts	Min	Max	Amps	Volts	Amps	Joules		PF		
SR181K25D☐☐	120	160	170	207	18000	300	100	90	180	3900	○	☆
SR201K25D☐☐	130	175	185	225	18000	340	100	100	200	3600	○	☆
SR221K25D☐☐	140	180	198	242	18000	360	100	105	225	3300	○	☆
SR241K25D☐☐	150	200	216	264	18000	395	100	110	235	3050	○	☆
SR271K25D☐☐	180	230	255	311	18000	455	100	120	245	2600	○	☆
SR301K25D☐☐	195	250	270	330	18000	505	100	125	255	2400	○	☆
SR331K25D☐☐	210	275	297	363	18000	545	100	130	270	2200	○	☆
SR361K25D☐☐	230	300	324	396	18000	595	100	160	315	2050	○	☆
SR391K25D☐☐	250	330	351	429	18000	650	100	175	342	1900	○	☆
R431K25D☐☐	275	370	387	473	18000	710	100	190	370	1700	○	☆
SR471K25D☐☐	300	385	423	517	18000	775	100	200	390	1600	○	☆
SR511K25D☐☐	320	420	459	561	18000	840	100	210	422	1400	○	☆
SR561K25D☐☐	360	470	522	638	18000	910	100	215	460	1200	○	☆
SR621K25D☐☐	390	505	558	682	18000	1025	100	225	495	1800	○	☆
SR681K25D☐☐	420	560	612	748	18000	1120	100	230	515	1100	○	☆
SR751K25D☐☐	460	615	675	825	18000	1240	100	250	530	1000	○	☆
SR781K25D☐☐	485	640	702	858	18000	1290	100	260	540	980	○	☆
SR821K25D☐☐	510	675	738	902	18000	1350	100	270	550	920	○	☆
SR911K25D☐☐	550	745	819	1001	18000	1400	100	300	600	880	○	☆
SR102K25D☐☐	625	825	900	1100	18000	1620	100	340	630	760	○	☆
SR112K25D☐☐	680	895	962	1175	18000	1800	100	390	700	650	○	☆

Remark :

1. ☐☐ : Suffix adding; please refer **"How to Order"** for details.
2. All parts approved as follows:

(1) ○ : **UL 1449** recognized (File # E172311).
(2) △ : **UL 497B** recognized (File # E199593).
(3) ☐ : **UL 1414** recognized (File # E182369).
(4) ☆ : **CSA** 22.2 #1 certified (File # LR109496-1 and LR109496-4).
(5) ◇ : **VDE**/CECC 42000/42200/42201, IEC 61051-1/61051-2/61051-2-2 (Certificate # 5932, 40010090, 40003435).
(6) **CQC** recognized for all part numbers (CQC04001010932).