Metal Oxide Varistors-Z Series (High Energy)

Data Sheet

Feature

■Varistor voltage range from 18V to 1200V

■Operating Temperature: -40℃~ +105℃

■Storage Temperature: 15℃~35℃

Applications

■The over-voltage protection for transistors, IC, SCR and semiconductor switching components and a variety of electronic, electrical equipment

■Surge absorption and over-voltage protection for household appliances

■Industrial electrical surge absorption

■Electrostatic discharge and noise signal cancellation

■Surge absorption of relays and solenoid valves

■Over-voltage protection for leakage switch

■The lightning protection and over-voltage protection for Telephone program-controlled switches and communications equipment

Applicable Standard

Approval		Organization	Safety Standards	Certificate No.
China	CQC	CQC	GB/T10193 GB/T10194 GB 4943.1-2022; IEC 61051-2:1991 +Amd1:2009	5D: CQC19001213185
				7D: CQC19001213190
				10D: CQC19001213188
				14D: CQC19001213191
				20D: CQC19001213192
				25D:CQC21001289415
USA Canada	c UL us	UL/cUL	UL1449	E330837
Germany	VDE REG C559	VDE	IEC61051 IEC60950-1:2013 IEC62368-1:2018/G.8.1	40023049

Part numbering on request.

Electrical Characteristics

5D-Z Series

Part Number	Maximum Allowable Voltage		Varistor Voltage	Maximum Clamping Voltage		Peak Current Rating(8/20μs)		Maximum Energy (10/1000μs)	Rated Power	Typical Capacitance (Reference)
	AC_{rms} (V)	DC_{rms} (V)	$V_{0.1mA}$ (V)	VC (V)	IP (A)	1 pulse (A)	2 pulse (A)	(J)	(W)	1KHz (pF)
STE-05D180KZ	11	14	18(15-21.6)	40	1	250	100	0.6	0.01	1400
STE-05D220KZ	14	18	22(19.5-26)	48	1	250	100	0.7	0.01	1150
STE-05D270KZ	17	22	27(24-31)	60	1	250	100	0.9	0.01	930
STE-05D330KZ	20	26	33(29.5-36.5)	73	1	250	100	1.1	0.01	760
STE-05D390KZ	25	31	39(35-43)	80	1	250	100	1.2	0.01	640
STE-05D470KZ	30	38	47(42-52)	104	1	250	100	1.5	0.01	530
STE-05D560KZ	35	45	56(50-62)	123	1	250	100	1.8	0.01	450
STE-05D680KZ	40	56	68(61-75)	145	1	250	100	2.2	0.01	370
STE-05D820KZ	50	65	82(74-90)	150	5	800	400	4.0	0.1	300
STE-05D101KZ	60	85	100(90-110)	175	5	800	400	4.1	0.1	250
STE-05D121KZ	75	100	120(108-132)	210	5	800	400	5.5	0.1	210
STE-05D151KZ	95	125	150(135-165)	260	5	800	400	6.5	0.1	165
STE-05D181KZ	115	150	180(162-198)	320	5	800	400	7.5	0.1	140
STE-05D201KZ	130	170	200(180-220)	355	5	800	400	8.5	0.1	125
STE-05D221KZ	140	180	220(198-242)	380	5	800	400	9.0	0.1	110
STE-05D241KZ	150	200	240(216-264)	415	5	800	400	10.5	0.1	100
STE-05D271KZ	175	225	270(243-297)	475	5	800	400	11.0	0.1	95
STE-05D301KZ	190	250	300(270-330)	520	5	800	400	12.0	0.1	85
STE-05D331KZ	210	275	330(297-363)	570	5	800	400	13.0	0.1	75
STE-05D361KZ	230	300	360(324-396)	620	5	800	400	16.0	0.1	70
STE-05D391KZ	250	320	390(351-429)	675	5	800	400	17.0	0.1	65
STE-05D431KZ	275	350	430(387-473)	745	5	800	400	20.0	0.1	60
STE-05D471KZ	300	385	470(423-517)	810	5	800	400	21.0	0.1	55
STE-05D511KZ	320	415	510(459-561)	845	5	800	400	22.5	0.1	50
STE-05D561KZ	350	460	560(504-616)	920	5	800	400	24.0	0.1	45
STE-05D621KZ	385	505	620(558-682)	1025	5	800	400	26.6	0.1	40
STE-05D681KZ	420	560	680(612-748)	1120	5	800	400	29.1	0.1	38

7D-Z Series

Part Number	Maximum Allowable Voltage		Varistor Voltage	Maximum Clamping Voltage		Peak Current Rating(8/20μs)		Maximum Energy (10/1000μs)	Rated Power	Typical Capacitance (Reference)
	AC_{rms} (V)	DC_{rms} (V)	V_{1mA} (V)	VC (V)	IP (A)	1 pulse (A)	2 pulse (A)	(J)	(W)	1KHz (pF)
STE-07D180KZ	11	14	18(15-21.6)	36	2.5	500	250	2.0	0.02	2800
STE-07D220KZ	14	18	22(19.5-26)	43	2.5	500	250	2.4	0.02	2300
STE-07D270KZ	17	22	27(24-31)	53	2.5	500	250	3.0	0.02	1800
STE-07D330KZ	20	26	33(29.5-36.5)	65	2.5	500	250	3.5	0.02	1500
STE-07D390KZ	25	31	39(35-43)	77	2.5	500	250	4.0	0.02	1300
STE-07D470KZ	30	38	47(42-52)	93	2.5	500	250	5.0	0.02	1100
STE-07D560KZ	35	45	56(50-62)	110	2.5	500	250	6.0	0.02	890
STE-07D680KZ	40	56	68(61-75)	135	2.5	500	250	7.0	0.02	740
STE-07D820KZ	50	65	82(74-90)	135	10	1750	1200	9.8	0.25	810
STE-07D101KZ	60	85	100(90-110)	165	10	1750	1200	11.6	0.25	700
STE-07D121KZ	75	100	120(108-132)	200	10	1750	1200	14.0	0.25	590
STE-07D151KZ	95	125	150(135-165)	250	10	1750	1200	16.8	0.25	500
STE-07D181KZ	115	150	180(162-198)	300	10	1750	1200	19.0	0.25	280
STE-07D201KZ	130	170	200(180-220)	340	10	1750	1200	21.0	0.25	200
STE-07D221KZ	140	180	220(198-242)	360	10	1750	1200	23.0	0.25	190
STE-07D241KZ	150	200	240(216-264)	395	10	1750	1200	25.0	0.25	170
STE-07D271KZ	175	225	270(243-297)	455	10	1750	1200	28.0	0.25	150
STE-07D301KZ	190	250	300(270-330)	500	10	1750	1200	32.0	0.25	140
STE-07D331KZ	210	275	330(297-363)	550	10	1750	1200	34.0	0.25	130
STE-07D361KZ	230	300	360(324-396)	595	10	1750	1200	37.0	0.25	130
STE-07D391KZ	250	320	390(351-429)	650	10	1750	1200	40.0	0.25	130
STE-07D431KZ	275	350	430(387-473)	710	10	1750	1200	46.0	0.25	120
STE-07D471KZ	300	385	470(423-517)	775	10	1750	1200	49.0	0.25	100
STE-07D511KZ	320	415	510(459-561)	845	10	1750	1200	54.0	0.25	90
STE-07D561KZ	350	460	560(504-616)	925	10	1750	1200	56.0	0.25	90
STE-07D621KZ	385	505	620(558-682)	1025	10	1750	1200	59.0	0.25	80
STE-07D681KZ	420	560	680(612-748)	1120	10	1750	1200	62.0	0.25	75
STE-07D751KZ	460	615	750(678-825)	1240	10	1750	1200	65.0	0.25	70
STE-07D781KZ	485	640	780(702-858)	1290	10	1750	1200	69.0	0.25	65
STE-07D821KZ	510	670	820(738-902)	1355	10	1750	1200	73.0	0.25	60

10D-Z Series

Part Number	Maximum Allowable Voltage		Varistor Voltage	Maximum Clamping Voltage		Peak Current Rating(8/20μs)		Maximum Energy (10/1000μs)	Rated Power	Typical Capacitance (Reference)
	AC_{rms} (V)	DC_{rms} (V)	V_{1mA} (V)	VC (V)	IP (A)	1 pulse (A)	2 pulse (A)	(J)	(W)	1KHz (pF)
STE-10D180KZ	11	14	18(15-21.6)	36	5	1000	500	3.0	0.05	5600
STE-10D220KZ	14	18	22(19.5-26)	43	5	1000	500	5.0	0.05	4500
STE-10D270KZ	17	22	27(24-31)	53	5	1000	500	6.0	0.05	3700
STE-10D330KZ	20	26	33(29.5-36.5)	65	5	1000	500	7.0	0.05	3000
STE-10D390KZ	25	31	39(35-43)	77	5	1000	500	9.0	0.05	2400
STE-10D470KZ	30	38	47(42-52)	93	5	1000	500	11.0	0.05	2100
STE-10D560KZ	35	45	56(50-62)	110	5	1000	500	13.0	0.05	1800
STE-10D680KZ	40	56	68(61-75)	135	5	1000	500	15.0	0.05	1500
STE-10D820KZ	50	65	82(74-90)	135	25	3500	2500	17.0	0.4	2000
STE-10D101KZ	60	85	100(90-110)	165	25	3500	2500	19.0	0.4	1700
STE-10D121KZ	75	100	120(108-132)	200	25	3500	2500	22.0	0.4	1400
STE-10D151KZ	95	125	150(135-165)	250	25	3500	2500	26.0	0.4	1100
STE-10D181KZ	115	150	180(162-198)	300	25	3500	2500	31.0	0.4	560
STE-10D201KZ	130	170	200(180-220)	340	25	3500	2500	35.0	0.4	430
STE-10D221KZ	140	180	220(198-242)	360	25	3500	2500	39.0	0.4	410
STE-10D241KZ	150	200	240(216-264)	395	25	3500	2500	42.0	0.4	380
STE-10D271KZ	175	225	270(243-297)	455	25	3500	2500	49.0	0.4	350
STE-10D301KZ	190	250	300(270-330)	500	25	3500	2500	53.0	0.4	330
STE-10D331KZ	210	275	330(297-363)	550	25	3500	2500	58.0	0.4	300
STE-10D361KZ	230	300	360(324-396)	595	25	3500	2500	65.0	0.4	300
STE-10D391KZ	250	320	390(351-429)	650	25	3500	2500	70.0	0.4	300
STE-10D431KZ	275	350	430(387-473)	710	25	3500	2500	80.0	0.4	270
STE-10D471KZ	300	385	470(423-517)	775	25	3500	2500	85.0	0.4	230
STE-10D511KZ	320	415	510(459-561)	845	25	3500	2500	92.0	0.4	210
STE-10D561KZ	350	460	560(504-616)	925	25	3500	2500	92.0	0.4	180
STE-10D621KZ	385	505	620(558-682)	1025	25	3500	2500	95.0	0.4	190
STE-10D681KZ	420	560	680(612-748)	1120	25	3500	2500	98.0	0.4	170
STE-10D751KZ	460	615	750(675-825)	1240	25	3500	2500	100	0.4	160
STE-10D781KZ	485	640	780(702-858)	1290	25	3500	2500	105	0.4	125
STE-10D821KZ	510	670	820(738-902)	1355	25	3500	2500	110	0.4	140
STE-10D911KZ	550	745	910(819-1001)	1500	25	3500	2500	130	0.4	120
STE-10D102KZ	625	825	1000(900-1100)	1650	25	3500	2500	140	0.4	110
STE-10D112KZ	680	895	1100(990-1210)	1815	25	3500	2500	155	0.4	90

14D-Z Series

Part Number	Maximum Allowable Voltage		Varistor Voltage	Maximum Clamping Voltage		Peak Current Rating(8/20μs)		Maximum Energy (10/1000μs)	Rated Power	Typical Capacitance (Reference)
	AC_{rms} (V)	DC_{rms} (V)	V_{1mA} (V)	VC (V)	IP (A)	1 pulse (A)	2 pulse (A)	(J)	(W)	1KHz (pF)
STE-14D180KZ	11	14	18(15-21.6)	36	10	2000	1000	7.0	0.1	11100
STE-14D220KZ	14	18	22(19.5-26)	43	10	2000	1000	8.0	0.1	9100
STE-14D270KZ	17	22	27(24-31)	53	10	2000	1000	10.0	0.1	7400
STE-14D330KZ	20	26	33(29.5-36.5)	65	10	2000	1000	12.0	0.1	6100
STE-14D390KZ	25	31	39(35-43)	77	10	2000	1000	13.0	0.1	5100
STE-14D470KZ	30	38	47(42-52)	93	10	2000	1000	17.0	0.1	4300
STE-14D560KZ	35	45	56(50-62)	110	10	2000	1000	20.0	0.1	3600
STE-14D680KZ	40	56	68(61-75)	135	10	2000	1000	24.0	0.1	2900
STE-14D820KZ	50	65	82(74-90)	135	50	6000	4500	29.4	0.6	3700
STE-14D101KZ	60	85	100(90-110)	165	50	6000	4500	33.6	0.6	3200
STE-14D121KZ	75	100	120(108-132)	200	50	6000	4500	40.6	0.6	2700
STE-14D151KZ	95	125	150(135-165)	250	50	6000	4500	51.8	0.6	2200
STE-14D181KZ	115	150	180(162-198)	300	50	6000	4500	60	0.6	1100
STE-14D201KZ	130	170	200(180-220)	340	50	6000	4500	82	0.6	770
STE-14D221KZ	140	180	220(198-242)	360	50	6000	4500	90	0.6	740
STE-14D241KZ	150	200	240(216-264)	395	50	6000	4500	98	0.6	700
STE-14D271KZ	175	225	270(243-297)	455	50	6000	4500	112	0.6	640
STE-14D301KZ	190	250	300(270-330)	500	50	6000	4500	123	0.6	670
STE-14D331KZ	210	275	330(297-363)	550	50	6000	4500	133	0.6	580
STE-14D361KZ	230	300	360(324-396)	595	50	6000	4500	142	0.6	540
STE-14D391KZ	250	320	390(351-429)	650	50	6000	4500	161	0.6	500
STE-14D431KZ	275	350	430(387-473)	710	50	6000	4500	182	0.6	450
STE-14D471KZ	300	385	470(423-517)	775	50	6000	4500	196	0.6	400
STE-14D511KZ	320	415	510(459-561)	845	50	6000	4500	210	0.6	350
STE-14D561KZ	350	460	560(504-616)	925	50	6000	4500	231	0.6	360
STE-14D621KZ	385	505	620(558-682)	1025	50	6000	4500	250	0.6	330
STE-14D681KZ	420	560	680(612-748)	1120	50	6000	4500	260	0.6	320
STE-14D751KZ	460	615	750(675-825)	1240	50	6000	4500	270	0.6	310
STE-14D781KZ	485	640	780(702-858)	1290	50	6000	4500	270	0.6	260
STE-14D821KZ	510	670	820(738-902)	1355	50	6000	4500	270	0.6	280
STE-14D911KZ	550	745	910(819-1001)	1500	50	6000	4500	295	0.6	250
STE-14D102KZ	625	825	1000(900-1100)	1650	50	6000	4500	335	0.6	230
STE-14D112KZ	680	895	1100(990-1210)	1815	50	6000	4500	360	0.6	180

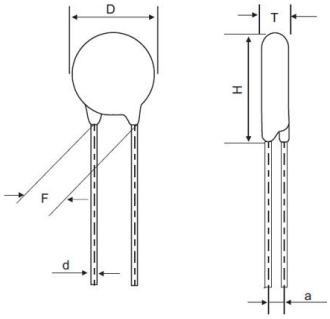
20D-Z Series

Part Number	Maximum Allowable Voltage		Varistor Voltage	Maximum Clamping Voltage		Peak Current Rating(8/20μs)		Maximum Energy (10/1000μs)	Rated Power	Typical Capacitance (Reference)
	AC_{rms} (V)	DC_{rms} (V)	V_{1mA} (V)	VC (V)	IP (A)	1 pulse (A)	2 pulse (A)	(J)	(W)	1KHz (pF)
STE-20D180KZ	11	14	18(15-21.6)	36	20	3000	2000	13.0	0.2	28500
STE-20D220KZ	14	18	22(19.5-26)	43	20	3000	2000	16.0	0.2	18500
STE-20D270KZ	17	22	27(24-31)	53	20	3000	2000	19.0	0.2	13000
STE-20D330KZ	20	26	33(29.5-36.5)	65	20	3000	2000	24.0	0.2	11500
STE-20D390KZ	25	31	39(35-43)	77	20	3000	2000	28.0	0.2	8500
STE-20D470KZ	30	38	47(42-52)	93	20	3000	2000	34.0	0.2	7400
STE-20D560KZ	35	45	56(50-62)	110	20	3000	2000	44.0	0.2	6500
STE-20D680KZ	40	56	68(61-75)	135	20	3000	2000	49.0	0.2	5800
STE-20D820KZ	50	65	82(74-90)	135	100	10000	6500	100	1.0	7500
STE-20D101KZ	60	85	100(90-110)	165	100	10000	6500	115	1.0	6500
STE-20D121KZ	75	100	120(108-132)	200	100	10000	6500	120	1.0	5500
STE-20D151KZ	95	125	150(135-165)	250	100	10000	6500	130	1.0	4500
STE-20D181KZ	115	150	180(162-198)	300	100	10000	6500	152	1.0	2200
STE-20D201KZ	130	170	200(180-220)	340	100	10000	6500	175	1.0	1700
STE-20D221KZ	140	180	220(198-242)	360	100	10000	6500	185	1.0	1600
STE-20D241KZ	150	200	240(216-264)	395	100	10000	6500	198	1.0	1500
STE-20D271KZ	175	225	270(243-297)	455	100	10000	6500	220	1.0	1300
STE-20D301KZ	190	250	300(270-330)	500	100	10000	6500	245	1.0	1300
STE-20D331KZ	210	275	330(297-363)	550	100	10000	6500	268	1.0	1100
STE-20D361KZ	230	300	360(324-396)	595	100	10000	6500	315	1.0	1100
STE-20D391KZ	250	320	390(351-429)	650	100	10000	6500	350	1.0	1100
STE-20D431KZ	275	350	430(387-473)	710	100	10000	6500	380	1.0	1000
STE-20D471KZ	300	385	470(423-517)	775	100	10000	6500	405	1.0	900
STE-20D511KZ	320	415	510(459-561)	845	100	10000	6500	445	1.0	800
STE-20D561KZ	350	460	560(504-616)	925	100	10000	6500	475	1.0	710
STE-20D621KZ	385	505	620(558-682)	1025	100	10000	6500	490	1.0	700
STE-20D681KZ	420	560	680(612-748)	1120	100	10000	6500	500	1.0	650
STE-20D751KZ	460	615	750(675-825)	1240	100	10000	6500	525	1.0	600
STE-20D781KZ	485	640	780(702-858)	1290	100	10000	6500	535	1.0	510
STE-20D821KZ	510	670	820(738-902)	1355	100	10000	6500	545	1.0	530
STE-20D911KZ	550	745	910(819-1001)	1500	100	10000	6500	595	1.0	500
STE-20D102KZ	625	825	1000(900-1100)	1650	100	10000	6500	650	1.0	450
STE-20D112KZ	680	895	1100(990-1210)	1815	100	10000	6500	720	1.0	360

25D-Z Series

Part Number	Maximum Allowable Voltage		Varistor Voltage	Maximum Clamping Voltage		Peak Current Rating(8/20μs)	Maximum Energy (10/1000μs)	Typical Capacitance (Reference)
	AC_{rms} (V)	DC_{rms} (V)	V_{1mA} (V)	VC (V)	IP (A)	1 pulse (A)	(J)	(pF)
STE-25D181KZ	115	150	180(162-198)	300	100	18000	180	3900
STE-25D201KZ	130	170	200(180-220)	340	100	18000	200	3600
STE-25D221KZ	140	180	220(198-242)	360	100	18000	225	3300
STE-25D241KZ	150	200	240(216-264)	395	100	18000	235	3000
STE-25D271KZ	175	225	270(243-297)	455	100	18000	245	2600
STE-25D301KZ	190	250	300(270-330)	505	100	18000	255	2400
STE-25D331KZ	210	275	330(297-363)	545	100	18000	270	2200
STE-25D361KZ	230	300	360(324-396)	595	100	18000	315	2050
STE-25D391KZ	250	320	390(351-429)	650	100	18000	342	1900
STE-25D431KZ	275	350	430(387-473)	710	100	18000	370	1750
STE-25D471KZ	300	385	470(423-517)	775	100	18000	390	1600
STE-25D511KZ	320	415	510(459-561)	840	100	18000	422	1400
STE-25D561KZ	350	460	560(504-616)	910	100	18000	460	1200
STE-25D621KZ	385	505	620(558-682)	1025	100	18000	495	1800
STE-25D681KZ	420	560	680(612-748)	1120	100	18000	515	1100
STE-25D751KZ	460	615	750(675-825)	1240	100	18000	530	1000
STE-25D781KZ	485	640	780(702-858)	1290	100	18000	540	950
STE-25D821KZ	510	670	820(738-902)	1350	100	18000	550	900
STE-25D911KZ	550	745	910(819-1001)	1400	100	18000	600	850
STE-25D102KZ	625	825	1000(900-1100)	1620	100	18000	630	760
STE-25D112KZ	680	895	1100(990-1210)	1800	100	18000	700	650
STE-25D122KZ	750	990	1200(1080-1320)	1950	100	18000	750	600

Dimensions (mm) and Approval



5D-Z Series

Part No.	Size (mm)				Approval			
	D Max.	T Max.	F±0.5	d±0.05	CQC	VDE	UL (USA)	cUL (Canada)
STE-05D180KZ	7.5	3.0	5.0	0.5			√	√
STE-05D220KZ	7.5	3.5	5.0	0.5			√	√
STE-05D270KZ	7.5	3.5	5.0	0.5			√	√
STE-05D330KZ	7.5	3.5	5.0	0.5			√	√
STE-05D390KZ	7.5	3.5	5.0	0.5			√	√
STE-05D470KZ	7.5	4.0	5.0	0.5				
STE-05D560KZ	7.5	4.0	5.0	0.5				
STE-05D680KZ	7.5	4.5	5.0	0.5				
STE-05D820KZ	7.5	3.5	5.0	0.5	√		√	√
STE-05D101KZ	7.5	3.5	5.0	0.5	√		√	√
STE-05D121KZ	7.5	3.5	5.0	0.5	√		√	√
STE-05D151KZ	7.5	3.5	5.0	0.5	√		√	√
STE-05D181KZ	7.5	4.0	5.0	0.5	√		√	√
STE-05D201KZ	7.5	4.0	5.0	0.5	√		√	√
STE-05D221KZ	7.5	4.0	5.0	0.5	√		√	√
STE-05D241KZ	7.5	4.0	5.0	0.5	√		√	√
STE-05D271KZ	7.5	4.0	5.0	0.5	√		√	√
STE-05D301KZ	7.5	4.5	5.0	0.5	√		√	√
STE-05D331KZ	7.5	4.5	5.0	0.5	√		√	√
STE-05D361KZ	7.5	4.5	5.0	0.5	√		√	√
STE-05D391KZ	7.5	5.0	5.0	0.5	√		√	√
STE-05D431KZ	7.5	4.5	5.0	0.5	√		√	√
STE-05D471KZ	7.5	4.5	5.0	0.5	√		√	√
STE-05D511KZ	7.5	5.0	5.0	0.5	√		√	√
STE-05D561KZ	7.5	5.0	5.0	0.5	√		√	√
STE-05D621KZ	7.5	5.0	5.0	0.5				
STE-05D681KZ	7.5	5.5	5.0	0.5				

7D-Z Series

Part No.	Size (mm)				Approval			
	D Max.	T Max.	F±0.5	d±0.05	CQC	VDE	UL (USA)	cUL (Canada)
STE-07D180KZ	9.0	3.5	5.0	0.5			√	√
STE-07D220KZ	9.0	3.5	5.0	0.5			√	√
STE-07D270KZ	9.0	3.5	5.0	0.5			√	√
STE-07D330KZ	9.0	3.5	5.0	0.5			√	√
STE-07D390KZ	9.0	3.5	5.0	0.5			√	√
STE-07D470KZ	9.0	4.0	5.0	0.5			√	√
STE-07D560KZ	9.0	4.0	5.0	0.5			√	√
STE-07D680KZ	9.0	4.5	5.0	0.5			√	√
STE-07D820KZ	9.0	3.5	5.0	0.5	√	√	√	√
STE-07D101KZ	9.0	3.5	5.0	0.5	√	√	√	√
STE-07D121KZ	9.0	3.5	5.0	0.5	√	√	√	√
STE-07D151KZ	9.0	3.5	5.0	0.5	√	√	√	√
STE-07D181KZ	9.0	4.0	5.0	0.5	√	√	√	√
STE-07D201KZ	9.0	4.0	5.0	0.5	√	√	√	√
STE-07D221KZ	9.0	4.5	5.0	0.5	√	√	√	√
STE-07D241KZ	9.0	4.0	5.0	0.5	√	√	√	√
STE-07D271KZ	9.0	4.0	5.0	0.5	√	√	√	√
STE-07D301KZ	9.0	4.5	5.0	0.5	√	√	√	√
STE-07D331KZ	9.0	4.5	5.0	0.5	√	√	√	√
STE-07D361KZ	9.0	4.5	5.0	0.5	√	√	√	√
STE-07D391KZ	9.0	5.0	5.0	0.5	√	√	√	√
STE-07D431KZ	9.0	4.5	5.0	0.5	√	√	√	√
STE-07D471KZ	9.0	4.5	5.0	0.5	√	√	√	√
STE-07D511KZ	9.0	5.0	5.0	0.5	√	√	√	√
STE-07D561KZ	9.0	5.0	5.0	0.5	√	√	√	√
STE-07D621KZ	9.0	5.0	5.0	0.5	√	√	√	√
STE-07D681KZ	9.0	5.5	5.0	0.5	√	√	√	√
STE-07D751KZ	9.0	6.0	5.0	0.5	√			
STE-07D821KZ	9.0	6.0	5.0	0.5	√			
STE-07D911KZ	9.0	6.5	5.0	0.5				

10D-Z Series

Part No.	Size (mm)				Approval			
	D Max.	T Max.	F±0.5	d±0.05	CQC	VDE	UL (USA)	cUL (Canada)
STE-10D180KZ	12.5	3.5	7.5	0.7			√	√
STE-10D220KZ	12.5	3.5	7.5	0.7			√	√
STE-10D270KZ	12.5	4.0	7.5	0.7			√	√
STE-10D330KZ	12.5	4.0	7.5	0.7			√	√
STE-10D390KZ	12.5	4.0	7.5	0.7			√	√
STE-10D470KZ	12.5	4.0	7.5	0.7			√	√
STE-10D560KZ	12.5	4.5	7.5	0.7			√	√
STE-10D680KZ	12.5	5.0	7.5	0.7			√	√
STE-10D820KZ	12.5	4.0	7.5	0.7	√	√	√	√
STE-10D101KZ	12.5	4.0	7.5	0.7	√	√	√	√
STE-10D121KZ	12.5	4.0	7.5	0.7	√	√	√	√
STE-10D151KZ	12.5	4.5	7.5	0.7	√	√	√	√
STE-10D181KZ	12.5	4.5	7.5	0.7	√	√	√	√
STE-10D201KZ	12.5	4.5	7.5	0.7	√	√	√	√
STE-10D221KZ	12.5	4.5	7.5	0.7	√	√	√	√
STE-10D241KZ	12.5	4.5	7.5	0.7	√	√	√	√
STE-10D271KZ	12.5	4.5	7.5	0.7	√	√	√	√
STE-10D301KZ	12.5	5.0	7.5	0.7	√	√	√	√
STE-10D331KZ	12.5	5.0	7.5	0.7	√	√	√	√
STE-10D361KZ	12.5	5.0	7.5	0.7	√	√	√	√
STE-10D391KZ	12.5	5.0	7.5	0.7	√	√	√	√
STE-10D431KZ	12.5	5.0	7.5	0.7	√	√	√	√
STE-10D471KZ	12.5	5.0	7.5	0.7	√	√	√	√
STE-10D511KZ	12.5	5.5	7.5	0.7	√	√	√	√
STE-10D561KZ	12.5	5.5	7.5	0.7	√	√	√	√
STE-10D621KZ	12.5	5.5	7.5	0.7	√	√	√	√
STE-10D681KZ	12.5	6.0	7.5	0.7	√	√	√	√
STE-10D751KZ	12.5	6.0	7.5	0.7	√	√	√	√
STE-10D781KZ	12.5	6.5	7.5	0.7	√		√	√
STE-10D821KZ	12.5	6.5	7.5	0.7	√	√	√	√
STE-10D911KZ	12.5	7.0	7.5	0.7	√	√	√	√
STE-10D102KZ	12.5	7.5	7.5	0.7	√	√	√	√
STE-10D112KZ	12.5	7.5	7.5	0.7	√		√	√

14D-Z Series

Part No.	Size (mm)				Approval			
	D Max.	T Max.	F±0.5	d±0.05	CQC	VDE	UL (USA)	cUL (Canada)
STE-14D180KZ	16.0	3.5	7.5	0.7			√	√
STE-14D220KZ	16.0	3.5	7.5	0.7			√	√
STE-14D270KZ	16.0	4.0	7.5	0.7			√	√
STE-14D330KZ	16.0	4.0	7.5	0.7			√	√
STE-14D390KZ	16.0	4.0	7.5	0.7			√	√
STE-14D470KZ	16.0	4.0	7.5	0.7			√	√
STE-14D560KZ	16.0	4.5	7.5	0.7			√	√
STE-14D680KZ	16.0	5.0	7.5	0.7			√	√
STE-14D820KZ	16.0	4.0	7.5	0.7	√	√	√	√
STE-14D101KZ	16.0	4.0	7.5	0.7	√	√	√	√
STE-14D121KZ	16.0	4.0	7.5	0.7	√	√	√	√
STE-14D151KZ	16.0	4.5	7.5	0.7	√	√	√	√
STE-14D181KZ	16.0	4.5	7.5	0.7	√	√	√	√
STE-14D201KZ	16.0	4.5	7.5	0.7	√	√	√	√
STE-14D221KZ	16.0	4.5	7.5	0.7	√	√	√	√
STE-14D241KZ	16.0	4.5	7.5	0.7	√	√	√	√
STE-14D271KZ	16.0	4.5	7.5	0.7	√	√	√	√
STE-14D301KZ	16.0	5.0	7.5	0.7	√	√	√	√
STE-14D331KZ	16.0	5.0	7.5	0.7	√	√	√	√
STE-14D361KZ	16.0	5.0	7.5	0.7	√	√	√	√
STE-14D391KZ	16.0	5.0	7.5	0.7	√	√	√	√
STE-14D431KZ	16.0	5.0	7.5	0.7	√	√	√	√
STE-14D471KZ	16.0	5.0	7.5	0.7	√	√	√	√
STE-14D511KZ	16.0	5.5	7.5	0.7	√	√	√	√
STE-14D561KZ	16.0	5.5	7.5	0.7	√	√	√	√
STE-14D621KZ	16.0	5.5	7.5	0.7	√	√	√	√
STE-14D681KZ	16.0	6.0	7.5	0.7	√	√	√	√
STE-14D751KZ	16.0	6.0	7.5	0.7	√	√	√	√
STE-14D781KZ	16.0	6.5	7.5	0.7	√		√	√
STE-14D821KZ	16.0	6.5	7.5	0.7	√	√	√	√
STE-14D911KZ	16.0	7.0	7.5	0.7	√	√	√	√
STE-14D102KZ	16.0	7.5	7.5	0.7	√	√	√	√
STE-14D112KZ	16.0	7.5	7.5	0.7	√		√	√

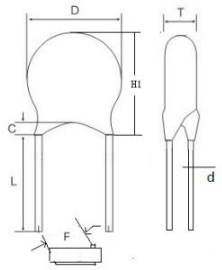
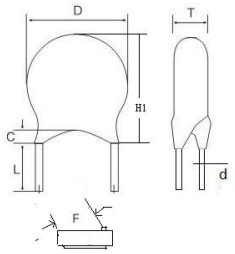
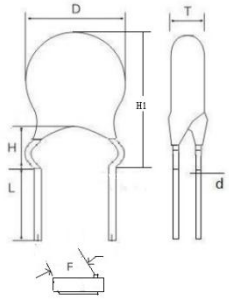
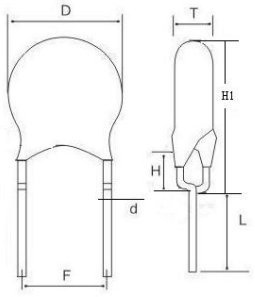
20D-Z Series

Part No.	Size (mm)					Approval			
	D Max.	T Max.	F± 0.5	d±0.05		CQC	VDE	UL (USA)	cUL (Canada)
				Straight lead	Crimped lead				
STE-20D180KZ	23.0	4.0	10.0	1.0	0.8			√	√
STE-20D220KZ	23.0	4.0	10.0	1.0	0.8			√	√
STE-20D270KZ	23.0	4.5	10.0	1.0	0.8			√	√
STE-20D330KZ	23.0	4.5	10.0	1.0	0.8			√	√
STE-20D390KZ	23.0	4.5	10.0	1.0	0.8			√	√
STE-20D470KZ	23.0	5.0	10.0	1.0	0.8			√	√
STE-20D560KZ	23.0	5.0	10.0	1.0	0.8			√	√
STE-20D680KZ	23.0	5.5	10.0	1.0	0.8			√	√
STE-20D820KZ	21.0	4.0	10.0	1.0	0.8	√	√	√	√
STE-20D101KZ	21.0	4.5	10.0	1.0	0.8	√	√	√	√
STE-20D121KZ	21.0	4.5	10.0	1.0	0.8	√	√	√	√
STE-20D151KZ	21.0	5.0	10.0	1.0	0.8	√	√	√	√
STE-20D181KZ	21.0	5.0	10.0	1.0	0.8	√	√	√	√
STE-20D201KZ	21.0	5.0	10.0	1.0	0.8	√	√	√	√
STE-20D221KZ	21.0	5.5	10.0	1.0	0.8	√	√	√	√
STE-20D241KZ	21.0	5.0	10.0	1.0	0.8	√	√	√	√
STE-20D271KZ	21.0	5.0	10.0	1.0	0.8	√	√	√	√
STE-20D301KZ	21.0	5.5	10.0	1.0	0.8	√	√	√	√
STE-20D331KZ	21.0	5.5	10.0	1.0	0.8	√	√	√	√
STE-20D361KZ	21.0	5.5	10.0	1.0	0.8	√	√	√	√
STE-20D391KZ	21.0	5.5	10.0	1.0	0.8	√	√	√	√
STE-20D431KZ	21.0	5.5	10.0	1.0	0.8	√	√	√	√
STE-20D471KZ	21.0	5.5	10.0	1.0	0.8	√	√	√	√
STE-20D511KZ	21.0	6.0	10.0	1.0	0.8	√	√	√	√
STE-20D561KZ	21.0	6.0	10.0	1.0	0.8	√	√	√	√
STE-20D621KZ	21.0	6.5	10.0	1.0	0.8	√	√	√	√
STE-20D681KZ	21.0	6.5	10.0	1.0	0.8	√	√	√	√
STE-20D751KZ	21.0	7.0	10.0	1.0	0.8	√	√	√	√
STE-20D781KZ	21.0	7.0	10.0	1.0	0.8	√		√	√
STE-20D821KZ	21.0	7.0	10.0	1.0	0.8	√	√	√	√
STE-20D911KZ	21.0	7.5	10.0	1.0	0.8	√	√	√	√
STE-20D102KZ	21.0	8.0	10.0	1.0	0.8	√	√	√	√
STE-20D112KZ	21.0	8.0	10.0	1.0	0.8	√		√	√

25D-Z Series

Part No.	Size (mm)				Approval			
	D Max.	T Max.	F±0.5	d±0.05	CQC	VDE	UL (USA)	cUL (Canada)
STE-25D181KZ	28.5	4.70	12.7	1.0	√	√	√	√
STE-25D201KZ	28.5	4.80	12.7	1.0	√	√	√	√
STE-25D221KZ	28.5	5.00	12.7	1.0	√	√	√	√
STE-25D241KZ	28.5	5.10	12.7	1.0	√	√	√	√
STE-25D271KZ	28.5	5.40	12.7	1.0	√	√	√	√
STE-25D301KZ	28.5	5.60	12.7	1.0	√	√	√	√
STE-25D331KZ	28.5	5.80	12.7	1.0	√	√	√	√
STE-25D361KZ	28.5	6.00	12.7	1.0	√	√	√	√
STE-25D391KZ	28.5	6.00	12.7	1.0	√	√	√	√
STE-25D431KZ	28.5	6.10	12.7	1.0	√	√	√	√
STE-25D471KZ	28.5	6.20	12.7	1.0	√	√	√	√
STE-25D511KZ	28.5	6.40	12.7	1.0	√	√	√	√
STE-25D561KZ	28.5	6.70	12.7	1.0	√	√	√	√
STE-25D621KZ	28.5	7.00	12.7	1.0	√	√	√	√
STE-25D681KZ	28.5	7.40	12.7	1.0	√	√	√	√
STE-25D751KZ	28.5	7.80	12.7	1.0	√	√	√	√
STE-25D781KZ	28.5	8.00	12.7	1.0	√		√	√
STE-25D821KZ	28.5	8.50	12.7	1.0	√	√	√	√
STE-25D911KZ	28.5	9.00	12.7	1.0	√	√	√	√
STE-25D102KZ	28.5	9.50	12.7	1.0	√	√	√	√
STE-25D112KZ	28.5	10.0	12.7	1.0	√		√	√
STE-25D122KZ	28.5	10.5	12.7	1.0	√	√	√	√

Lead Configuration

Lead Style	Drawing	Lead Length L (mm)	Coating Lead Length C (mm)	Height H (mm)
Long Straight		16.0 min	3.0 Max	/
Short Straight		①[2.5≤L＜6.0]+/-0.5; ②[6.0≤L≤10]+/-1.0	3.0 Max	/
Outside Crimped		①[2.5≤L＜6.0]+/-0.5; ②[6.0≤L≤10]+/-1.0	Not exceed the bend point	5.5mm Max
Vertical Crimped		①[2.5≤L＜6.0]+/-0.5; ②[6.0≤L≤10]+/-1.0	Not exceed the bend point	4.5mm Max

Taping And Dimensions (mm)

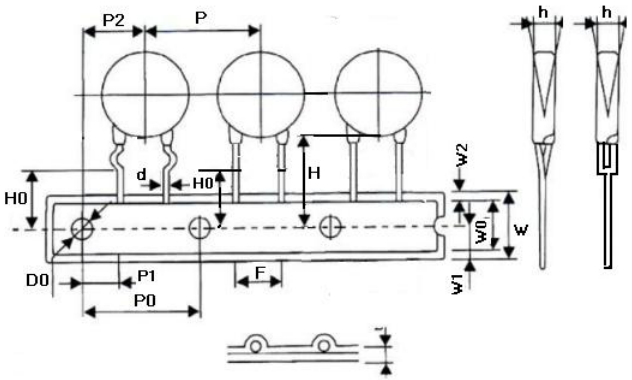
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<tr><th rowspan="2">Figure</th><th colspan="2">Fig.1</th><th colspan="4">Fig.2</th></tr>
<tr><td>Symbol</td><td>P=5.0</td><td>P=7.5</td><td></td><td>P=10.0</td><td></td></tr>
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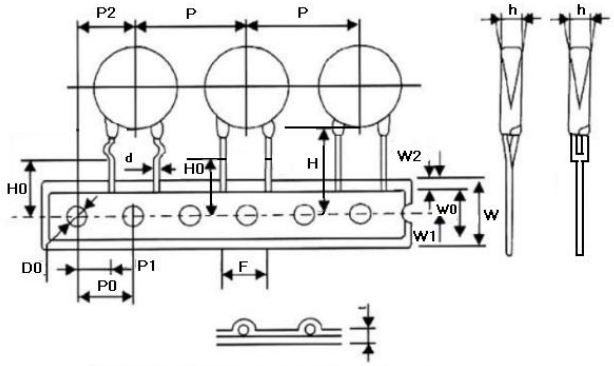
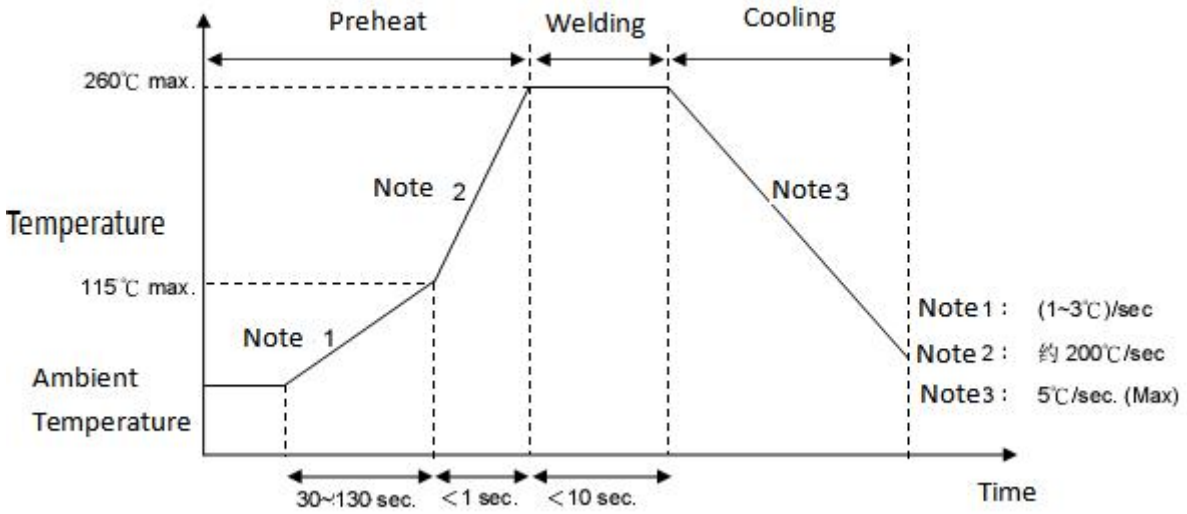
Fig.1 (P=5.0)


Fig.2 (P=7.5 & 10)</td><td>Po</td><td>12.7±0.3</td><td>12.7±0.3</td><td></td><td>12.7±0.3</td><td></td></tr>
<tr><td>P</td><td>12.7±1.0</td><td>25.4±1.0</td><td></td><td>25.4±1.0</td><td></td></tr>
<tr><td>P1</td><td>3.85±0.7</td><td>8.95±0.7</td><td></td><td>7.7±0.7</td><td></td></tr>
<tr><td>P2</td><td>6.35±1.3</td><td>12.7±1.3</td><td></td><td>12.7±1.3</td><td></td></tr>
<tr><td>F</td><td>5±0.5</td><td>7.5±0.5</td><td></td><td>10.0±0.5</td><td></td></tr>
<tr><td>Δh</td><td>0±2.0</td><td>0±2.0</td><td></td><td>0±2.0</td><td></td></tr>
<tr><td>W</td><td>18.0+1.5/-1.0</td><td>18.0 +1.5/-1.0</td><td></td><td>18.0 +1.5/-1.0</td><td></td></tr>
<tr><td>Wo</td><td>10.5 Max</td><td>10.5 Max</td><td></td><td>10.5 Max</td><td></td></tr>
<tr><td>W1</td><td>9.0+0.75/-0.5</td><td>9.0+0.75/-0.5</td><td></td><td>9.0+0.75/-0.5</td><td></td></tr>
<tr><td>W2</td><td>3.0 Max</td><td>3.0 Max</td><td></td><td>3.0 Max</td><td></td></tr>
<tr><td>Do</td><td>4.0±0.2</td><td>4.0±0.2</td><td></td><td>4.0±0.2</td><td></td></tr>
<tr><td>H</td><td>20+1.5/-1.0</td><td>20+1.5/-1.0</td><td></td><td>20+1.5/-1.0</td><td></td></tr>
<tr><td>Ho</td><td>16.5&17.0&19.0
+1.5/-1.0</td><td>16.5&17.0&19.0
+1.5/-1.0</td><td></td><td>16.5&17.0&19.0
+1.5/-1.0</td><td></td></tr>
<tr><td rowspan="2">L</td><td>Straight Lead</td><td>Crimped Lead</td><td>Straight Lead</td><td>Crimped Lead</td><td>Straight Lead</td><td>Crimped Lead</td></tr>
<tr><td>11.0 Max</td><td>9.0 Max</td><td>11.0 Max</td><td>9.0 Max</td><td>11.0 Max</td><td>9.0 Max</td></tr>
<tr><td>t1</td><td>0.5±0.2</td><td>0.5±0.2</td><td></td><td>0.5±0.2</td><td></td></tr>
<tr><td>t2</td><td>1.7 Max</td><td>1.7 Max</td><td></td><td>1.7 Max</td><td></td></tr>
</table>

Soldering Condition

Wave Soldering Graph



Iron Soldering Condition

Item	Condition
Temperature of soldering copper bit	350℃（max.）
Soldering duration	3sec（max.）
Space between soldering position and coating layer	2mm（min.）

Storage Conditions

- Storage Temperature: ≤35℃.
- Relative Humidity: ≤70% RH.
- Keep away from corrosive atmosphere and sunlight.
- Shelf Life: No more than 12 months. (from the date on the packaging).