



Product Service

CERTIFICATE

No. B 096048 0010 Rev. 02

Holder of Certificate: **BESTBRIGHT ELECTRONICS CO LTD**
#3 Building, Modern Enterprise
Accelerator Park
Song Shan Lake High-tech Industrial Development Zone
523808 Dongguan City, Guangdong Province
PEOPLE'S REPUBLIC OF CHINA

Certification Mark:



Product: **Surge absorber
(Varistor)**

The product was tested on a voluntary basis and complies with the essential requirements. The certification mark shown above can be affixed on the product. It is not permitted to alter the certification mark in any way. In addition, the certification holder must not transfer the certificate to third parties. This certificate is valid until the listed date, unless it is cancelled earlier. All applicable requirements of the testing and certification regulations of TÜV SÜD Group have to be complied. For details see: www.tuvsud.com/ps-cert

Test report no.: 64100180595203

Valid until: 2026-06-17

Date, 2021-06-18

(Martin Ma)

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Model(s):

H05, H07, H10, H14, H20 series

(180KH05, 220KH05, 270KH05, 330KH05, 390KH05, 470KH05, 560KH05, 680KH05, 820KH05, 101KH05,, 121KH05, 151KH05, 181KH05, 201KH05, 221KH05, 241KH05, 271KH05, 301KH05, 331KH05, 361KH05, 391KH05, 431KH05, 471KH05, 511KH05, 561KH05, 621KH05, 681KH05, 711KH05, 751KH05, 781KH05, 821KH05, 911KH05, 180KH07, 220KH07, 270KH07, 330KH07, 390KH07, 470KH07, 560KH07, 680KH07, 820KH07, 101KH07, 121KH07, 151KH07, 181KH07, 201KH07, 221KH07, 241KH07, 271KH07, 301KH07, 331KH07, 361KH07, 391KH07, 431KH07, 471KH07, 511KH07, 561KH07, 621KH07, 681KH07, 711KH07, 751KH07, 781KH07, 821KH07, 911KH07, 180KH10, 220KH10, 270KH10, 330KH10, 390KH10, 470KH10, 560KH10, 680KH10, 820KH10, 101KH10, 121KH10, 151KH10, 181KH10, 201KH10, 221KH10, 241KH10, 271KH10, 301KH10, 331KH10, 361KH10, 391KH10, 431KH10, 471KH10, 511KH10, 561KH10, 621KH10, 681KH10, 711KH10, 751KH10, 781KH10, 821KH10, 911KH10, 951KH10, 102KH10, 112KH10, 122KH10, 180KH14, 220KH14, 270KH14, 330KH14, 390KH14, 470KH14, 560KH14, 680KH14, 820KH14, 101KH14, 121KH14, 151KH14, 181KH14, 201KH14, 221KH14, 241KH14, 271KH14, 301KH14, 331KH14, 361KH14, 391KH14, 431KH14, 471KH14, 511KH14, 561KH14, 621KH14, 681KH14, 711KH14, 751KH14, 781KH14, 821KH14, 911KH14, 951KH14, 102KH14, 112KH14, 122KH14, 142KH14, 152KH14, 162KH14, 182KH14, 180KH20, 220KH20, 270KH20, 330KH20, 390KH20, 470KH20, 560KH20, 680KH20, 820KH20, 101KH20, 121KH20, 151KH20, 181KH20, 201KH20, 221KH20, 241KH20, 271KH20, 301KH20, 331KH20, 361KH20, 391KH20, 431KH20, 471KH20, 511KH20, 561KH20, 621KH20, 681KH20, 711KH20, 751KH20, 781KH20, 821KH20, 911KH20, 951KH20, 102KH20, 112KH20, 122KH20, 142KH20, 152KH20, 162KH20, 182KH20)

Parameters:

Maximum continuous voltage:	Details see Electrical Rating table
Leakage current:	Details see Electrical Rating table
Reference current:	1mA
Class current(8/20 μ s):	Details see Electrical Rating table
Maximum peak current(8/20 μ s, 1time):	Details see Electrical Rating table
Climatic category:	40/140/21
Flame class:	V-0

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H05 series:

Model	Maximum continuous voltage(V)		Leakage Current (uA) (Max.)	Nominal varistor voltage (V)	Clamping Voltage (Max. V)	Class current (Max. A)	Maximum Peak Current (A)	Energy (10/1000 μs) (Max.)	Capacitance (Typical) pF
	A.C	D.C							
180KH05	11	14	50	18	40	1	250	0.6	1800
220KH05	14	18	50	22	48	1	250	0.7	1150
270KH05	17	22	50	27	60	1	250	0.9	930
330KH05	20	26	50	33	73	1	250	1.1	760
390KH05	25	31	50	39	80	1	250	1.2	640
470KH05	30	38	50	47	104	1	250	1.5	530
560KH05	35	45	50	56	123	1	250	1.8	450
680KH05	40	56	50	68	145	1	250	2.2	370
820KH05	50	65	30	82	150	5	800	4.0	300
101KH05	60	85	30	100	175	5	800	4.1	250
121KH05	75	100	30	120	210	5	800	4.9	210
151KH05	95	125	30	150	260	5	800	6.5	165
181KH05	115	150	30	180	320	5	800	7.5	140
201KH05	130	170	20	200	355	5	800	8.5	125
221KH05	140	180	20	220	380	5	800	9.0	110
241KH05	150	200	20	240	415	5	800	10.5	100
271KH05	175	225	20	270	475	5	800	11	95
301KH05	190	250	20	300	520	5	800	12	85
331KH05	210	275	20	330	570	5	800	13	75
361KH05	230	300	20	360	620	5	800	16	70
391KH05	250	320	20	390	675	5	800	17	65
431KH05	275	350	20	430	745	5	800	20	60
471KH05	300	385	20	470	810	5	800	21	55
511KH05	320	415	20	510	845	5	800	23	50
561KH05	350	460	20	560	920	5	800	24	45
621KH05	385	505	20	620	1025	5	800	27	40
681KH05	420	560	20	680	1120	5	800	29	38
711KH05	440	580	20	710	1170	5	800	30	35
751KH05	460	615	20	750	1240	5	800	32	33
781KH05	485	640	20	780	1290	5	800	33	30
821KH05	510	670	20	820	1355	5	800	35	25
911KH05	550	745	20	910	1500	5	800	39	20

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H07 series:

Model	Maximum continuous voltage(V)		Leakage Current (uA) (Max.)	Nominal varistor voltage (V)	Clamping Voltage (Max. V)	Class current (Max. A)	Maximum Peak Current (A)	Energy (10/1000 μ s) (Max.)	Capacitance (Typical) pF
	A.C	D.C							
180KH07	11	14	50	18	36	2.5	500	2.0	3200
220KH07	14	18	50	22	43	2.5	500	2.4	2300
270KH07	17	22	50	27	53	2.5	500	3.0	1800
330KH07	20	26	50	33	65	2.5	500	3.5	1500
390KH07	25	31	50	39	77	2.5	500	4.0	1300
470KH07	30	38	50	47	93	2.5	500	5.0	1100
560KH07	35	45	50	56	110	2.5	500	6.0	890
680KH07	40	56	50	68	135	2.5	500	7.0	740
820KH07	50	65	30	82	135	10	1750	10	600
101KH07	60	85	30	100	165	10	1750	12	500
121KH07	75	100	30	120	200	10	1750	13	420
151KH07	95	125	30	150	250	10	1750	15	330
181KH07	115	150	30	180	300	10	1750	16	280
201KH07	130	170	20	200	340	10	1750	17	250
221KH07	140	180	20	220	360	10	1750	19	230
241KH07	150	200	20	240	395	10	1750	21	210
271KH07	175	225	20	270	455	10	1750	24	185
301KH07	190	250	20	300	500	10	1750	26	165
331KH07	210	275	20	330	550	10	1750	28	150
361KH07	230	300	20	360	595	10	1750	32	140
391KH07	250	320	20	390	650	10	1750	35	130
431KH07	275	350	20	430	710	10	1750	40	115
471KH07	300	385	20	470	775	10	1750	42	105
511KH07	320	415	20	510	845	10	1750	45	100
561KH07	350	460	20	560	925	10	1750	49	90
621KH07	385	505	20	620	1025	10	1750	55	80
681KH07	420	560	20	680	1120	10	1750	60	75
711KH07	440	580	20	710	1170	10	1750	62	72
751KH07	460	615	20	750	1240	10	1750	64	70
781KH07	485	640	20	780	1290	10	1750	69	65
821KH07	510	670	20	820	1355	10	1750	73	60
911KH07	550	745	20	910	1500	10	1750	78	55

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H10 series:

Model	Maximum continuous voltage(V)		Leakage Current (uA) (Max.)	Nominal varistor voltage (V)	Clamping Voltage (Max. V)	Class current (Max. A)	Maximum Peak Current (A)	Energy (10/1000 μs) (Max.)	Capacitance (Typical) pF
	A.C	D.C	I _L	V _N	V _C	8/20 μs I _C	8/20 μs (1time)	J	C
180KH10	11	14	50	18	36	5	1000	3.0	6500
220KH10	14	18	50	22	43	5	1000	5.0	4500
270KH10	17	22	50	27	53	5	1000	6.0	3700
330KH10	20	26	50	33	65	5	1000	7.0	3000
390KH10	25	31	50	39	77	5	1000	9.0	2400
470KH10	30	38	50	47	93	5	1000	11	2100
560KH10	35	45	50	56	110	5	1000	13	1800
680KH10	40	56	50	68	135	5	1000	15	1500
820KH10	50	65	30	82	135	25	3500	17	1200
101KH10	60	85	30	100	165	25	3500	18	1000
121KH10	75	100	30	120	200	25	3500	21	830
151KH10	95	125	30	150	250	25	3500	25	670
181KH10	115	150	30	180	300	25	3500	30	560
201KH10	130	170	20	200	340	25	3500	35	500
221KH10	140	180	20	220	360	25	3500	39	450
241KH10	150	200	20	240	395	25	3500	42	420
271KH10	175	225	20	270	455	25	3500	49	370
301KH10	190	250	20	300	500	25	3500	54	330
331KH10	210	275	20	330	550	25	3500	58	300
361KH10	230	300	20	360	595	25	3500	65	280
391KH10	250	320	20	390	650	25	3500	70	260
431KH10	275	350	20	430	710	25	3500	80	230
471KH10	300	385	20	470	775	25	3500	85	210
511KH10	320	415	20	510	845	25	3500	90	200
561KH10	350	460	20	560	925	25	3500	92	180
621KH10	385	505	20	620	1025	25	3500	95	160
681KH10	420	560	20	680	1120	25	3500	98	150
711KH10	440	580	20	710	1170	25	3500	99	140
751KH10	460	615	20	750	1240	25	3500	100	130
781KH10	485	640	20	780	1290	25	3500	105	125
821KH10	510	670	20	820	1355	25	3500	110	120
911KH10	550	745	20	910	1500	25	3500	130	110
951KH10	575	780	20	950	1570	25	3500	135	105
102KH10	625	825	20	1000	1650	25	3500	140	100
112KH10	680	895	20	1100	1815	25	3500	155	90
122KH10	750	990	20	1200	1980	25	3500	165	80

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H14 series:

Model	Maximum continuous voltage(V)		Leakage Current (uA) (Max.)	Nominal varistor voltage (V)	Clamping Voltage (Max. V)	Class current (Max. A)	Maximum Peak Current (A)	Energy (10/1000 μs) (Max.)	Capacitance (Typical) pF
	A.C	D.C	I _L	V _N	V _C	8/20 μs I _C	8/20 μs (1time)	J	C
180KH14	11	14	50	18	36	10	2000	7.0	11100
220KH14	14	18	50	22	43	10	2000	8.0	9100
270KH14	17	22	50	27	53	10	2000	10	7400
330KH14	20	26	50	33	65	10	2000	12	6100
390KH14	25	31	50	39	77	10	2000	13	5100
470KH14	30	38	50	47	93	10	2000	17	4300
560KH14	35	45	50	56	110	10	2000	20	3600
680KH14	40	56	50	68	135	10	2000	24	2900
820KH14	50	65	30	82	135	50	6000	27	2400
101KH14	60	85	30	100	165	50	6000	33	2000
121KH14	75	100	30	120	200	50	6000	40	1700
151KH14	95	125	30	150	250	50	6000	53	1300
181KH14	115	150	30	180	300	50	6000	60	1100
201KH14	130	170	20	200	340	50	6000	70	1000
221KH14	140	180	20	220	360	50	6000	78	900
241KH14	150	200	20	240	395	50	6000	84	830
271KH14	175	225	20	270	455	50	6000	99	740
301KH14	190	250	20	300	500	50	6000	108	670
331KH14	210	275	20	330	550	50	6000	115	610
361KH14	230	300	20	360	595	50	6000	130	560
391KH14	250	320	20	390	650	50	6000	140	510
431KH14	275	350	20	430	710	50	6000	155	460
471KH14	300	385	20	470	775	50	6000	175	430
511KH14	320	415	20	510	845	50	6000	180	390
561KH14	350	460	20	560	925	50	6000	185	360
621KH14	385	505	20	620	1025	50	6000	190	320
681KH14	420	560	20	680	1120	50	6000	200	290
711KH14	440	580	20	710	1170	50	6000	205	280
751KH14	460	615	20	750	1240	50	6000	210	270
781KH14	485	640	20	780	1290	50	6000	220	260
821KH14	510	670	20	820	1355	50	6000	235	240
911KH14	550	745	20	910	1500	50	6000	255	220
951KH14	575	780	20	950	1570	50	6000	260	210
102KH14	625	825	20	1000	1650	50	6000	280	200
112KH14	680	895	20	1100	1815	50	6000	310	180
122KH14	750	990	20	1200	1980	50	6000	324	160
142KH14	880	1140	20	1400	2310	50	6000	327	150
152KH14	930	1200	20	1500	2475	50	6000	329	145
162KH14	1000	1280	20	1600	2640	50	6000	331	140
182KH14	1100	1465	20	1800	2970	50	6000	335	130

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H20 series:

Model	Maximum continuous voltage(V)		Leakage Current (uA) (Max.)	Nominal varistor voltage (V)	Clamping Voltage (Max. V)	Class current (Max. A)	Maximum Peak Current (A)	Energy (10/1000 μs) (Max.)	Capacitance (Typical) pF
	A.C	D.C	I _L	V _N	V _C	8/20 μs I _C	8/20 μs (1time)	J	C
180KH20	11	14	50	18	36	20	3000	13	28500
220KH20	14	18	50	22	43	20	3000	16	18500
270KH20	17	22	50	27	53	20	3000	19	13000
330KH20	20	26	50	33	65	20	3000	24	11500
390KH20	25	31	50	39	77	20	3000	28	8500
470KH20	30	38	50	47	93	20	3000	34	7400
560KH20	35	45	50	56	110	20	3000	44	6500
680KH20	40	56	50	68	135	20	3000	49	5800
820KH20	50	65	30	82	135	100	12000	56	4900
101KH20	60	85	30	100	165	100	12000	70	4000
121KH20	75	100	30	120	200	100	12000	85	3300
151KH20	95	125	30	150	250	100	12000	106	2700
181KH20	115	150	30	180	300	100	12000	130	2200
201KH20	130	170	20	200	340	100	12000	140	2000
221KH20	140	180	20	220	360	100	12000	155	1800
241KH20	150	200	20	240	395	100	12000	168	1650
271KH20	175	225	20	270	455	100	12000	190	1500
301KH20	190	250	20	300	500	100	12000	210	1300
331KH20	210	275	20	330	550	100	12000	228	1200
361KH20	230	300	20	360	595	100	12000	255	1100
391KH20	250	320	20	390	650	100	12000	275	1000
431KH20	275	350	20	430	710	100	12000	305	930
471KH20	300	385	20	470	775	100	12000	350	850
511KH20	320	415	20	510	845	100	12000	360	780
561KH20	350	460	20	560	925	100	12000	380	710
621KH20	385	505	20	620	1025	100	12000	390	650
681KH20	420	560	20	680	1120	100	12000	400	600
711KH20	440	580	20	710	1170	100	12000	410	560
751KH20	460	615	20	750	1240	100	12000	420	530
781KH20	485	640	20	780	1290	100	12000	440	510
821KH20	510	670	20	820	1355	100	12000	460	500
911KH20	550	745	20	910	1500	100	12000	510	440
951KH20	575	780	20	950	1570	100	12000	520	420
102KH20	625	825	20	1000	1650	100	12000	565	400
112KH20	680	895	20	1100	1815	100	12000	620	360
122KH20	750	990	20	1200	1980	100	12000	660	350
142KH20	880	1140	20	1400	2310	100	12000	784	340
152KH20	930	1200	20	1500	2475	100	12000	820	335
162KH20	1000	1280	20	1600	2640	100	12000	896	330
182KH20	1100	1465	20	1800	2970	100	12000	990	320

Tested according to: IEC 61051-1:2018
IEC 61051-2:1991/A1:2009
IEC 61051-2-2:1991