



Product Service

CERTIFICATE

No. B 108830 0001 Rev. 00

Holder of Certificate: **Dongguan Cigu Electronic Technology Co., Ltd.**
3A, Bldg. D, No. 29, Baohong Rd.
Baotangxia, Baotun Community, Houjie Town
523961 Dongguan, Guangdong
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.: 6810019013501A

Valid until: 2025-05-18

Date, 2020-07-02

(Jie Zhu)

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Model(s):

CIGUxxDyyyK

Description the rule of the nomenclature:

CIGU xx D yyy K

I II III IV

I – xx can be 05, 07, 10, 14, 20 means diameter of the varistor chip: 5mm, 7mm, 10mm, 14mm, 20mm;

II – D means diameter

III – Nominal varistor voltage:

yyy can be 180, 220, 270, 330, 390, 470, 560, 680, 820, 101,121,151, 181, 201,221, 241, 271, 301, 331, 361, 391, 431, 471, 511, 561, 621, 681, 711, 751, 781, 821, 911, 102, 112, 122,142,162,182. For example,151 stands for 15×100=150V.

IV–Optional, Tolerance of Nominal varistor voltage: ± 10%;

Parameters:

Insulation voltage:	AC2500V
Maximum continuous voltage:	See below table for details
Leakage current:	See below table for details
Nominal varistor voltage:	See below table for details
Reference current:	1mA
Clamping Voltage:	See below table for details
Class current (8/20 µs):	See below table for details
Maximum peak current (8/20 µs, 1time):	See below table for details
Climatic category:	40/125/56
Flame class:	V-0

Electrical Rating:

Type	Maximum continuous voltage(V)		Leakage Current (µA) (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
CIGU 05D180K	11	14	20	18	36	1	250	0.6	2550
CIGU 05D220K	14	18	20	22	43	1	250	0.7	1250
CIGU 05D270K	17	22	20	27	53	1	250	0.9	1000
CIGU 05D330K	20	26	20	33	65	1	250	1.1	900

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CIGU 05D390K	25	31	20	39	77	1	250	1.2	500
CIGU 05D470K	30	38	20	47	93	1	250	1.5	450
CIGU 05D560K	35	45	20	56	110	1	250	1.8	400
CIGU 05D680K	40	56	20	68	135	1	250	2.2	350
CIGU 05D820K	50	65	20	82	135	1	800	3.5	250
CIGU 05D101K	60	85	20	100	165	5	800	4	200
CIGU 05D121K	75	100	20	120	200	5	800	5	170
CIGU 05D151K	95	125	20	150	250	5	800	6.5	140
CIGU 05D181K	115	150	20	180	300	5	800	7.5	120
CIGU 05D201K	130	170	20	200	340	5	800	8.5	80
CIGU 05D221K	140	180	20	220	360	5	800	9	70
CIGU 05D241K	150	200	20	240	395	5	800	10.5	70
CIGU 05D271K	175	225	20	270	455	5	800	11	65
CIGU 05D301K	190	250	20	300	500	5	800	12	65
CIGU 05D331K	210	275	20	330	550	5	800	3	65
CIGU 05D361K	230	300	20	360	595	5	800	16	50
CIGU 05D391K	250	320	20	390	650	5	800	17	50
CIGU 05D431K	275	350	20	430	710	5	800	20	45
CIGU 05D471K	300	385	20	470	775	5	800	21	40
CIGU 05D511K	320	410	20	510	845	5	800	21	30

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CIGU 05D561K	350	450	20	560	920	5	800	22	30
CIGU 05D621K	385	510	20	620	1025	5	800	22	25
CIGU 05D681K	420	560	20	680	1120	5	800	22	20
CIGU 07D180K	11	14	20	18	36	2.5	500	1.1	4200
CIGU 07D220K	14	18	20	22	43	2.5	500	1.3	2700
CIGU 07D270K	17	22	20	27	53	2.5	500	1.6	1900
CIGU 07D330K	20	26	20	33	65	2.5	500	2	1450
CIGU 07D390K	25	31	20	39	77	2.5	500	2.4	1350
CIGU 07D470K	30	38	20	47	93	2.5	500	2.8	1150
CIGU 07D560K	35	45	20	56	110	2.5	500	3.4	940
CIGU 07D680K	40	56	20	68	135	2.5	500	4.1	880
CIGU 07D820K	50	65	20	82	135	10	1750	7	825
CIGU 07D101K	60	85	20	100	165	10	1750	8.5	750
CIGU 07D121K	75	100	20	120	200	10	1750	10	675
CIGU 07D151K	95	125	20	150	250	10	1750	13	525
CIGU 07D181K	115	150	20	180	300	10	1750	15	525
CIGU 07D201K	130	170	20	200	340	10	1750	17.5	375
CIGU 07D221K	140	180	20	220	360	10	1750	19	375
CIGU 07D241K	150	200	20	240	395	10	1750	21	300
CIGU 07D271K	175	225	20	270	455	10	1750	24	255

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CIGU 07D301K	190	250	20	300	500	10	1750	26	230
CIGU 07D331K	210	275	20	330	550	10	1750	28	225
CIGU 07D361K	230	300	20	360	595	10	1750	32	195
CIGU 07D391K	250	320	20	390	650	10	1750	35	195
CIGU 07D431K	275	350	20	430	710	10	1750	40	165
CIGU 07D471K	300	385	20	470	775	10	1750	42	150
CIGU 07D511K	320	415	20	510	845	10	1750	45	150
CIGU 07D561K	350	460	20	560	920	10	1750	45	90
CIGU 07D621K	385	505	20	620	1025	10	1750	50	90
CIGU 07D681K	420	560	20	680	1120	10	1750	55	85
CIGU 07D751K	460	615	20	750	1240	10	1750	60	80
CIGU 07D781K	485	640	20	780	1290	10	1750	60	80
CIGU 07D821K	510	670	20	820	1355	10	1750	63	80
CIGU 10D180K	11	14	20	18	36	5	1000	2.6	7300
CIGU 10D220K	14	18	20	22	43	5	1000	3.2	5500
CIGU 10D270K	17	22	20	27	53	5	1000	3.9	3900
CIGU 10D330K	20	26	20	33	65	5	1000	4.8	2900
CIGU 10D390K	25	31	20	39	77	5	1000	5.6	2600
CIGU 10D470K	30	38	20	47	93	5	1000	6.8	2250
CIGU 10D560K	35	45	20	56	110	5	1000	8.5	2100

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CIGU 10D680K	40	56	20	68	135	5	1000	9.8	2000
CIGU 10D820K	50	65	20	82	135	25	4000	25	2700
CIGU 10D101K	60	85	20	100	165	25	4000	29	2100
CIGU 10D121K	75	100	20	120	200	25	4000	33	1650
CIGU 10D151K	95	125	20	150	250	25	4000	40	1350
CIGU 10D181K	115	150	20	180	300	25	4000	47	1125
CIGU 10D201K	130	170	20	200	340	25	4000	52	750
CIGU 10D221K	140	180	20	220	360	25	4000	58	675
CIGU 10D241K	150	200	20	240	395	25	4000	64	600
CIGU 10D271K	175	225	20	270	455	25	4000	67	525
CIGU 10D301K	190	250	20	300	500	25	4000	70	505
CIGU 10D331K	210	275	20	330	550	25	4000	72	495
CIGU 10D361K	230	300	20	360	595	25	4000	76	450
CIGU 10D391K	250	320	20	390	650	25	4000	82	405
CIGU 10D431K	275	350	20	430	710	25	4000	93	375
CIGU 10D471K	300	385	20	470	775	25	4000	99	345
CIGU 10D511K	320	415	20	510	845	25	4000	107	315
CIGU 10D561K	350	460	20	560	920	25	4000	113	285
CIGU 10D621K	385	505	20	620	1025	25	4000	125	195
CIGU 10D681K	420	560	20	680	1120	25	4000	128	190

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CIGU 10D751K	460	615	20	750	1240	25	4000	135	180
CIGU 10D781K	485	640	20	780	1290	25	4000	140	170
CIGU 10D821K	510	670	20	820	1355	25	4000	146	165
CIGU 10D911K	550	745	20	910	1500	25	4000	152	100
CIGU 10D102K	625	825	20	1000	1650	25	4000	170	125
CIGU 10D112K	680	895	20	1100	1815	25	4000	180	100
CIGU 14D180K	11	14	20	18	36	10	2000	5.2	17000
CIGU 14D220K	14	18	20	22	43	10	2000	6.3	14000
CIGU 14D270K	17	22	20	27	53	10	2000	7.8	9500
CIGU 14D330K	20	26	20	33	65	10	2000	9.5	7200
CIGU 14D390K	25	31	20	39	77	10	2000	11	6400
CIGU 14D470K	30	38	20	47	93	10	2000	14	5200
CIGU 14D560K	35	45	20	56	110	10	2000	16	4800
CIGU 14D680K	40	56	20	68	135	10	2000	20	4550
CIGU 14D820K	50	65	20	82	135	50	7000	50	4350
CIGU 14D101K	60	85	20	100	165	50	7000	58	3600
CIGU 14D121K	75	100	20	120	200	50	7000	65	2850
CIGU 14D151K	95	125	20	150	250	50	7000	80	2250
CIGU 14D181K	115	150	20	180	300	50	7000	90	1950
CIGU 14D201K	130	170	20	200	340	50	7000	100	1500

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CIGU 14D221K	140	180	20	220	360	50	7000	112	1500
CIGU 14D241K	150	200	20	240	395	50	7000	125	1350
CIGU 14D271K	175	225	20	270	455	50	7000	135	1125
CIGU 14D301K	190	250	20	300	500	50	7000	140	1000
CIGU 14D331K	210	275	20	330	550	50	7000	145	975
CIGU 14D361K	230	300	20	360	595	50	7000	155	825
CIGU 14D391K	250	320	20	390	650	50	7000	170	750
CIGU 14D431K	275	350	20	430	710	50	7000	185	675
CIGU 14D471K	300	385	20	470	775	50	7000	205	600
CIGU 14D511K	320	415	20	510	845	50	7000	220	525
CIGU 14D561K	350	460	20	560	920	50	7000	240	450
CIGU 14D621K	385	505	20	620	1025	50	7000	250	375
CIGU 14D681K	420	560	20	680	1120	50	7000	260	360
CIGU 14D751K	460	615	20	750	1240	50	7000	270	345
CIGU 14D781K	485	640	20	780	1290	50	7000	275	320
CIGU 14D821K	510	670	20	820	1355	50	7000	280	300
CIGU 14D911K	550	745	20	910	1500	50	7000	295	270
CIGU 14D102K	625	825	20	1000	1650	50	7000	280	290
CIGU 14D112K	680	895	20	1100	1815	50	7000	310	265
CIGU 14D122K	750	990	20	1200	1980	50	7000	345	225

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CIGU 14D142K	880	1140	20	1400	2310	50	7000	375	130
CIGU 14D162K	980	1280	20	1600	2640	50	7000	415	110
CIGU 14D182K	1000	1465	20	1800	2970	50	7000	510	95
CIGU 20D180K	11	14	20	18	36	20	3000	13	35000
CIGU 20D220K	14	18	20	22	43	20	3000	16	29000
CIGU 20D270K	17	22	20	27	53	20	3000	19	21000
CIGU 20D330K	20	26	20	33	65	20	3000	24	16000
CIGU 20D390K	25	31	20	39	77	20	3000	28	14000
CIGU 20D470K	30	38	20	47	93	20	3000	34	12500
CIGU 20D560K	35	45	20	56	110	20	3000	41	10500
CIGU 20D680K	40	56	20	68	135	20	3000	49	9500
CIGU 20D820K	50	65	20	82	135	100	10000	99	8250
CIGU 20D101K	60	85	20	100	165	100	10000	115	7050
CIGU 20D121K	75	100	20	120	200	100	10000	130	5700
CIGU 20D151K	95	125	20	150	250	100	10000	160	4500
CIGU 20D181K	115	150	20	180	300	100	10000	180	3750
CIGU 20D201K	130	170	20	200	340	100	10000	200	3000
CIGU 20D221K	140	180	20	220	360	100	10000	223	2900
CIGU 20D241K	150	200	20	240	395	100	10000	249	2700
CIGU 20D271K	175	225	20	270	455	100	10000	267	2400

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CIGU 20D301K	190	250	20	300	500	100	10000	278	2200
CIGU 20D331K	210	275	20	330	550	100	10000	289	2100
CIGU 20D361K	230	300	20	360	595	100	10000	307	1800
CIGU 20D391K	250	320	20	390	650	100	10000	335	1500
CIGU 20D431K	275	350	20	430	710	100	10000	365	1350
CIGU 20D471K	300	385	20	470	775	100	10000	405	1300
CIGU 20D511K	320	415	20	510	845	100	10000	430	1200
CIGU 20D561K	350	460	20	560	920	100	10000	469	1050
CIGU 20D621K	385	505	20	620	1025	100	10000	490	750
CIGU 20D681K	420	560	20	680	1120	100	10000	517	690
CIGU 20D751K	460	615	20	750	1240	100	10000	537	630
CIGU 20D781K	485	640	20	780	1290	100	10000	550	620
CIGU 20D821K	510	670	20	820	1355	100	10000	570	600
CIGU 20D911K	550	745	20	910	1500	100	10000	599	550
CIGU 20D102K	625	825	20	1000	1650	100	10000	565	600
CIGU 20D112K	680	895	20	1100	1815	100	10000	610	550
CIGU 20D122K	750	990	20	1200	1980	100	10000	690	480
CIGU 20D142K	880	1140	20	1400	2310	100	10000	750	450
CIGU 20D162K	980	1440	20	1600	2640	100	10000	830	370
CIGU 20D182K	1000	1620	20	1800	2970	100	10000	1020	290

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Remark: CIGU10DyyyK, CIGU14DyyyK, CIGU20DyyyK with nominal varistor at 201K and above were comply with IEC 62368-1:2018 Annex G.8.1 and IEC 60950-1:2005/A2:2013 Annex Q

Tested according to: EN IEC 61051-1:2018
IEC 61051-2:1991
IEC 61051-2:1991/AMD1:2009
IEC 61051-2-2:1991

Production Facility(ies): 107583