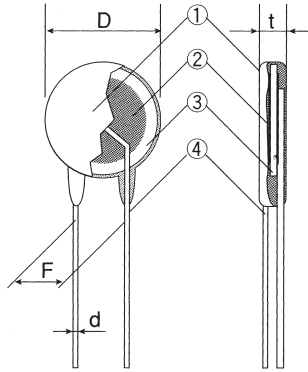
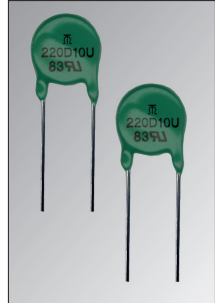


CIRCUIT PROTECTORS
DISK TYPE VARISTORS
PEAK CURRENT
NV D_U



STRUCTURE

- 1 Insulation coating
- 2 Electrodes (Ag)
- 3 Varistor element
- 4 Lead wire

IDENTIFICATION

PRODUCT CODE	COATING COLOR	MARKING
NV D_U	Dark Green	Black, Alpha Numeric (Abbreviation of P/N and Production Lot No.)

Products with Pb-free inner connect solder meet EU-RoHS requirements

TYPE DESIGNATION (HOW TO ORDER)

NV	D	10	UB	C	D	MHT	A	270
PRODUCT CODE	DISC TYPE	DISC DIAMETER 07 = 7mm ϕ 05, 07, 10, 14, 20	U-SERIES U = U-series S = S-series UB = U-series (5mm pitch)	TERMINATION SURFACE MATERIAL C: SnCu	INNER CONNECT SOLDER MATERIAL D: SnAgCu Blank: Sn/Pb	TAPING & FORMING Blank: Bulk *Please see "PACKAGING"	PACKAGING A: Ammo	VARISTOR VOLTAGE Unit: V Below 100V: 3 digits 22V → 022 Above 100V: real number 1800V → 1800

Contact us when you have control request for environmental hazardous material other than the substance specified by EU-RoHS

FEATURES

- Varistors own two-way symmetries and can absorb positive and negative surges
- Able to withstand high current and high energy handling capability
- Wide operating voltage range
- Ideal for use as countermeasure for inductive lightning surges of equipment which is connected to DC and AC lines
- Absorption of surge voltages from inductive load of motors, relays etc. and protection of semiconductor elements from excessive voltage
- Flame retardant epoxy resin overcoating (UL94 V-0)
- Products with lead free inner connect solder meet RoHS requirements
- Storage temperature range: -40°C...+125°C
- Operating temperature range: -40°C...+85°C

DIMENSIONS (mm)

TYPE (DISK ϕ)	ϕ D max.*	ϕ d (Nom.)	F	t max.*
D 05 U	7...7.5	0.6	5 ± 1	4.3...5.9
D 07 U	9...9.5	0.6	5 ± 1	4.3...5.9
D 10 U	12...13.5	0.8	7.5 ± 1	4.3...14.4
D 10 UB	12	0.6	5 ± 1	4.3...5.3
D 14 U	16...17	0.8	7.5 ± 1	4.3...14.4
D 20 U	23...24	1.0	10 ± 1	5.8...10.8

* Dimensions vary according to the varistor voltage.

Approval Awarded and Coverage

- UL1449 (3rd Edition) (File No. E328032): NVD05, NVD07 : 82~470V, NVD10 : 82~1100V, NVD14 : 82~910V, NVD20 : 100~910V
- UL1414, c-UL1414 (File No. E123865): NVD05, NVD07 : 200~470V, NVD10 : 200~1100V, NVD14, NVD20 : 200~910V
- VDE (CECC42000, CECC42200, CECC42201, IEC61051 : File No. 40015637)
NVD05, NVD07 : 22~470V, NVD10 : 22~1100V, NVD14 : 22~910V

RATING

Type	Varistor Vol. (V)	Max. Allowable Circuit Vol.		Max. Energy E (J)	Max. Peak Current I _p (A)(2 times)	Clamping Vol.		Max. Energy E (J)	Max. Peak Current I _p (A)(2 times)	Clamping Vol.		Max. Energy E (J)	Max. Peak Current I _p (A)(2 times)	Clamping Vol.		Max. Energy E (J)	Max. Peak Current I _p (A)(2 times)	Clamping Vol. V _{100A}	
		a.c.r.m.s. (V)	d.c.(V)			V _{1A}	V _{5A}			V _{2.5A}	V _{10A}			V _{5A}	V _{25A}				V _{10A}
NVD□SCD018	16~22	11	14	0.3	50	40	—	—	—	—	—	—	—	—	—	—	—	—	
NVD□UCD022	20~27	14	18	0.5	—	48	—	1.1	—	43	—	2.6	—	43	—	—	—	—	
NVD□UCD027	25~32	17	22	0.7	—	60	—	1.3	—	53	—	3.2	—	53	—	—	—	—	
NVD□UCD033	30~39	20	26	0.8	—	73	—	1.6	—	65	—	4.0	—	65	—	—	—	—	
NVD□UCD039	37~47	25	31	0.9	—	86	—	1.9	—	77	—	4.4	—	77	—	—	—	—	
NVD□UCD047	45~54	30	38	1.1	—	104	—	2.3	—	93	—	5.7	—	93	—	—	—	—	
NVD□UCD056	52~62	35	45	1.3	—	123	—	2.7	—	110	—	6.7	—	110	—	—	—	—	
NVD□UCD068	60~76	40	56	1.6	—	150	—	3.3	—	135	—	8.2	—	135	—	—	—	—	
NVD□SCD082	74~90	50	65	1.7	—	—	145	3.5	—	—	135	8.0	—	—	135	14.0	—	—	
NVD□UCD100 ⁴	90~110	60	85	3.0	—	—	175	6.0	—	—	165	12.0	—	—	165	18 ³	—	—	
NVD□UCD120	108~132	75	100	3.5	—	—	210	7.0	—	—	200	14.5	—	—	200	—	—	—	
NVD□UCD150	135~165	95	125	4.5	—	—	260	9.0	—	—	250	18.0	—	—	250	37.5	—	—	
NVD□UCD200	185~225	130	170	6.0	—	—	355	12.5	—	—	340	25.0	—	—	340	50.0	—	—	
NVD□UCD220	198~242	140	180	6.5	—	—	380	13.5	—	—	360	27.5	—	—	360	55.0	—	—	
NVD□UCD240	216~264	150	200	7.5	—	—	415	15.0	—	—	395	30.0	—	—	395	60.0	—	—	
NVD□UCD270	247~303	175	225	8.0	—	—	475	17.0	—	—	455	35.0	—	—	455	70.0	—	—	
NVD□UCD330	297~363	210	270	9.5	—	—	570	20.0	—	—	545	42.0	—	—	545	80.0	—	—	
NVD□UCD360	342~396	230	300	11.0	—	—	620	23.0	—	—	595	45.0	—	—	595	90.0	—	—	
NVD□UCD390	367~429	250	320	12.0	—	—	675	25.0	—	—	650	50.0	—	—	650	100.0	—	—	
NVD□UCD430	407~473	275	350	13.5	—	—	745	27.5	—	—	710	55.0	—	—	710	110.0	—	—	
NVD□UCD470	437~517	300	385	15.0	—	—	810	30.0	—	—	775	60.0	—	—	775	125.0	—	—	
NVD□UCD510	474~561	320	410	—	—	—	—	—	—	—	—	—	—	—	845	—	—	—	
NVD□UCD620	577~682	385	505	—	—	—	—	—	—	—	—	—	—	—	1025	136.0	—	—	
NVD□UCD680	637~748	420	560	—	—	—	—	—	—	—	—	—	—	—	1120	—	273	—	
NVD□UCD750	697~825	460	615	—	—	—	—	—	—	—	—	—	—	—	1240	—	—	—	
NVD□UCD780	737~858	485	640	—	—	—	—	—	—	—	—	—	—	—	1290	150.0	—	—	
NVD□UCD820	767~902	510	670	—	—	—	—	—	—	—	—	—	—	—	1290	—	300	—	
NVD□UCD910	857~1000	550	745	—	—	—	—	—	—	—	—	—	—	—	1355	165.0	—	—	
NVD□UCD1100	1070~1210	680	895	—	—	—	—	—	—	—	—	—	—	—	1500	180.0	—	—	
NVD□UCD1800	1700~1980	1000	1465	—	—	—	—	—	—	—	—	—	—	—	1815	—	—	—	
															2970	360.0	—	—	—

□ Enter disc diameter

*3 Manufacturing range of NVD10UBCD is varistor voltages 22...270. *4 NVD14SC100 is applied.

Use the varistor within the specified values as there is a risk of destruction of the varistor when the impulse power over the maximum energy is applied.

Contact our sales representatives before you use our products for applications including automobiles, medical equipment and aerospace equipment. Malfunction or failure of the products in such applications may cause loss of human life or serious damage.

Specifications given herein may be changed at any time without prior notice. Please confirm technical specifications before you order or use.

CIRCUIT PROTECTORS