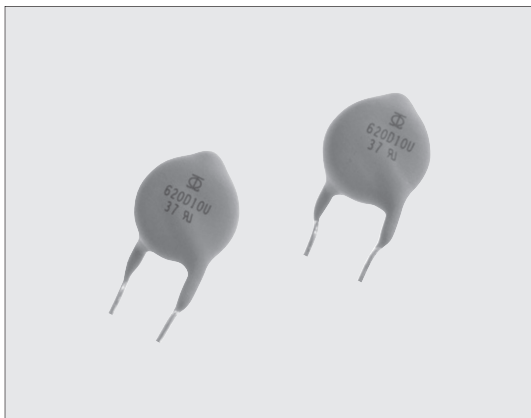
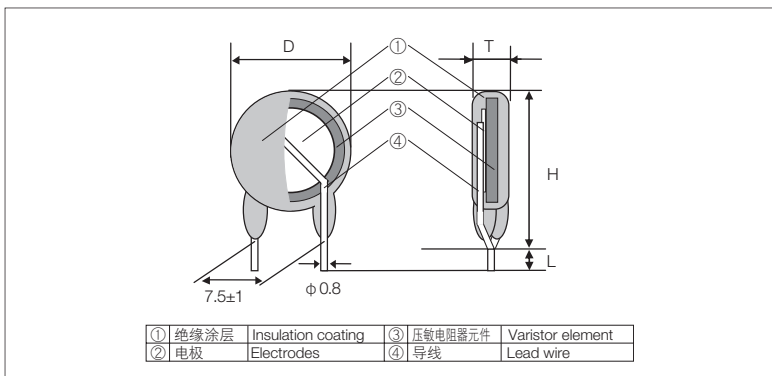


NVF 金属氧化物压敏电阻器 (阻燃型) Metal Oxide Varistors (Nonflammable Coated)



■ 结构图 Construction

(mm)



外观颜色：灰色 Body color: Gray
表示：文字表示 Marking: Alphanumeric

■ 特点 Features

- 有双向对称性，可吸收正负浪涌。
- 包装上采用阻燃性硅胶 (UL94V-0)。
- 符合欧盟RoHS。
- Varistors own two-way symmetries and can absorb positive and negative surges.
- Flame retardant SILICONE (UL94V-0) is employed for the outer coating.
- Products meet EU-RoHS requirements.

■ 尺寸 Dimensions

型号 Type	尺寸 Dimensions (mm)				重量 Weight (g) (100pcs)
	D max.*1	T max.*1	H max	L	
NVF10U	15.0~16.0	6.8~11.5	22.0	3.5±0.5	130~320

※1 D最大和t最大，因压敏电阻器电压不同而变化。
※1 D max. and t max. vary according to the varistor voltage.

■ 用途 Applications

- 直流和交流线路设备的防感应闪电冲击对策。
- 吸收来自电动机、继电器等感应载荷的过电压，和在过电压时保护半导体元件。
- Measures for inductive lightning surges of those equipment that are connected to d.c. and a.c. lines.
- Absorption of surge voltages from inductive load of motors, relays, etc. and protection of semiconductor elements from excessive voltages.

■ 品名构成 Type Designation

实例 Example

NVF	10	U	C	D	F	470
品种 Product Code	磁盘直径 Diameter of Element 10: φ10mm	系列 Series U: U系列 U serie	端子表面材质 Terminal Surface Material C: SnCu	内部连接焊锡 Inner Connect Solder Material D: SnAgCu	二次加工 包装 Forming & Packaging F: L=3.5mm 散装 Bulk	压敏电阻器电压 Varistor Voltage Ex. 470V: 470

欲知关于此产品含有的环境负荷物质详情 (除EU-RoHS以外)，请与我们联系。
Contact us when you have control request for environmental hazardous material other than the substance specified by EU-RoHS.

■ 额定值 Ratings

工作温度范围 Operating Temp. Range: -40°C~+85°C
保存温度范围 Storage Temp. Range: -40°C~+125°C

型号 Type	压敏电阻器电压 Varistor Vol. (V)	最大允许回路电压 Max. Allowable Circuit Vol. (V)		最大电能 Max. Energy E (J) T=2ms	耐浪涌量 Max. Peak Current T=8/20 μs		限制电压 Clamping Vol. V25A
		a.c.r.m.s. (V)	d.c. (V)		I _p (1 time) (A)	I _p (10000 times) (A)	
NVF10UCDF220	198~242	140	180	27.5	3500	150	360
NVF10UCDF240	216~264	150	200	30.0			395
NVF10UCDF270	247~303	175	225	35.0			455
NVF10UCDF430	387~473	275	350	55.0			710
NVF10UCDF470	423~517	300	385	60.0			775
NVF10UCDF510	459~561	320	410	67.0			845
NVF10UCDF620	558~682	385	505	67.0			1025
NVF10UCDF680	612~748	420	560	67.0			1120

■ 取得规格和范围 Approval Awarded and Coverage

- UL1449 (File No. E328032)
- c-UL1449 (File No. E328032)
- VDE (IEC61051 IEC60950-1AnnexQ: File No. 40037531)

■ 性能 Performance

试验项目 Test Items	标准值 Performance Requirements	试验方法 Test Methods
	$\Delta V \pm \%$	
压敏电阻器电压 Varistor Voltage	在规定的允许偏差内 Within specified tolerance	把规定的电流 $I_c=1\text{mA}$ 流入压敏电阻时的端子间电压。 The voltage between terminals when the specified current is flowed.
耐焊接热 Resistance to soldering heat	$\pm 5\%$ 外观应无异常 No abnormality in appearance.	$260 \pm 5^\circ\text{C}$, $10 \pm 1\text{s}$
焊接性 Solderability	应有95%以上的新焊锡覆盖。 95% Coverage min.	$230 \pm 5^\circ\text{C}$ $5 \pm 0.5\text{s}/250 \pm 5^\circ\text{C}$ $5 \pm 0.5\text{s}$ (Pb free)
温度突变 Rapid change of temperature	$\pm 5\%$ 外观应无异常 No abnormality in appearance.	-40°C (30min)/ $+125^\circ\text{C}$ (30min) 50cycles
耐浪涌量 Maximum peak current	$\pm 10\%$ 外观应无异常 No abnormality in appearance.	把额定的冲击波电流 ($T=8 \times 20 \mu\text{s}$) 施加一次。 Rated impulse current of ($T=8/20 \mu\text{s}$), positive or negative applied once.
最大电能 Maximum energy	$\pm 10\%$ 外观应无异常 No abnormality in appearance.	把额定能量 ($T=2\text{ms}$) 施加一次。 A single standard impulse of ($T=2\text{ms}$), once.
施加高温直流电压 High temperature life with d.c. bias	$\pm 10\%$ 外观应无异常 No abnormality in appearance.	$85^\circ\text{C} \pm 5^\circ\text{C}$ 、 $V_c = \text{最大允许回路电压 (Vd.c.)}$ 1000h Load: Maximum allowable circuit voltage (Vd.c.)
施加高温高湿直流电压 High temperature and high humidity life with d.c bias	$\pm 10\%$ 外观应无异常 No abnormality in appearance.	$85 \pm 5^\circ\text{C}$ RH=85% $V_c = \text{最大允许回路电压 (Vd.c.)}$ 1000h Load: Maximum allowable circuit voltage (Vd.c.)
高温高湿保存 High temperature & high humidity storage life	$\pm 5\%$ 外观应无异常 No abnormality in appearance.	$80 \pm 5^\circ\text{C}$ 95%RH 1000h
高温保存 High temperature storage life	$\pm 5\%$ 外观应无异常 No abnormality in appearance.	$125^\circ\text{C} \pm 5^\circ\text{C}$, 1000h
低温保存 Low temperature storage life	$\pm 5\%$ 外观应无异常 No abnormality in appearance.	$-40^\circ\text{C} \pm 5^\circ\text{C}$, 1000h
浪涌寿命 Peak current life	$\pm 10\%$ 外观应无异常 No abnormality in appearance.	以10秒钟间隔把额定的冲击波电流 ($T=8/20 \mu\text{s}$) 施加10,000次。 Rated impulse current of ($T=8/20 \mu\text{s}$), 10,000 times, interval 10sec.

压敏电阻器
Varistors

■ 电压-电流曲线 Voltage-Current Curves ($T_a=25^\circ\text{C}$)

