

4x
GREATER
SURGE PROTECTION

Superior Peak Surge Current Ratings in Small Disc Sizes

**Littelfuse LV UltraMOV™ Series
Varistor offers 4x greater surge
withstanding capability than existing
technologies on the market today**

The Littelfuse LV UltraMOV Series Varistor is designed with a new, proprietary formulation that can provide higher surge ratings with a smaller volume of material used per energy unit. It features a wide VAC voltage range of 11V to 40V, and VDC voltage range of 14V to 56V.

Applications

- Telecom Power Systems
- Surge Protection Devices
- Automation Controls
- Audio Devices
- Security Systems
- Wireless Base Stations



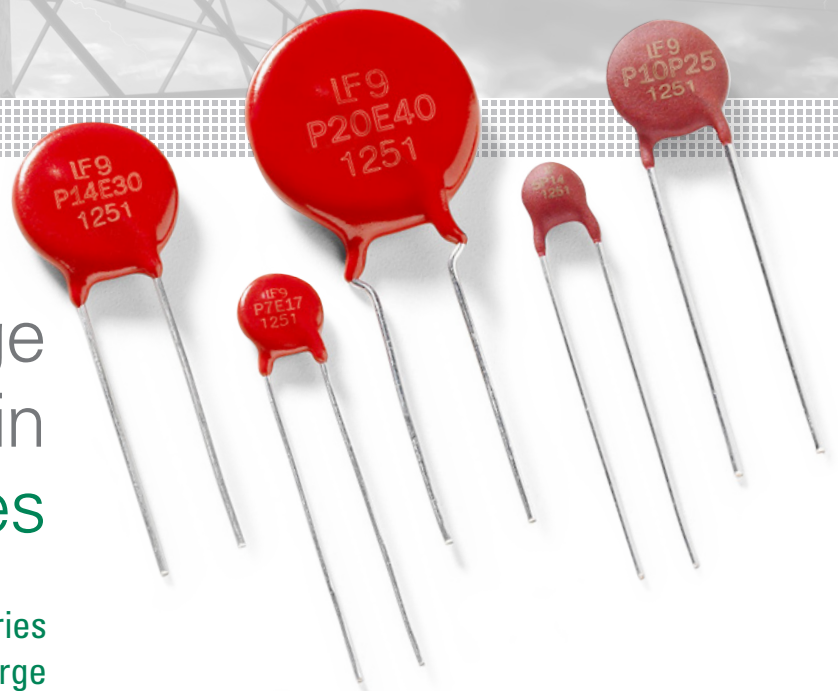
Datasheet



Resources



Samples



LV UltraMOV provides 4X greater surge protection for low DC voltage applications in the smallest package



Epoxy Coated



Phenolic Coated

Features

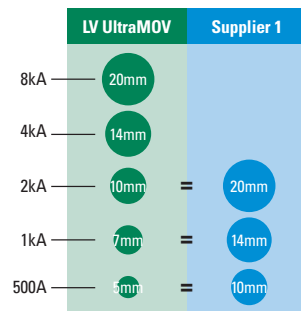
- Breakthrough in low voltage varistor design provides 4X greater surge protection
- Reduced footprint and volume required for surge protection
- High energy absorption capability
- High resistance to temperature cycling
- Optional phenolic coating
- Lead-free, halogen-free, and RoHS compliant

Benefits

- Increased long-term reliability due to the ability to handle higher surges over the end product's lifetime
- More board space is available for higher value functional components
- Lower weight and cost for end product from use of a smaller disc
- Higher surge handling density in critical surge protection device module solutions
- Higher operating temperature range—up to 125°C
- Environmentally friendly product

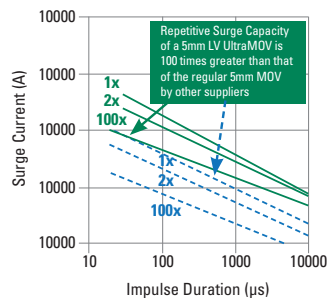
How does LV UltraMOV reduce varistor disc size?

The LV UltraMOV delivers the same peak surge rating in a disc that's half the size of other technologies on the market.



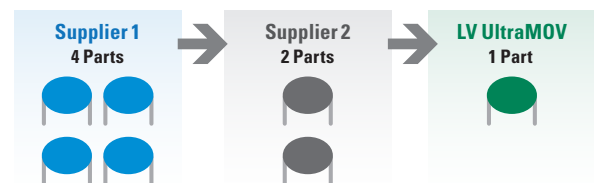
Higher surge rating for the same size disc

LV UltraMOV improves the reliability of the varistor by enhancing the surge withstanding capability of the varistor device. For example, a 5mm LV UltraMOV varistor can withstand 100 times as many 100A 8x20μs surges as other 5mm varistors currently available.



LV UltraMOV reduces counts for design engineers

LV UltraMOV can help circuit designers reduce counts based on the total surge level, thereby reducing the footprint and volume required for surge protection.



Higher surge rating for the same size disc with Littelfuse LV UltraMOV

Diameter (mm)	VRMS (V)	VOC (V)	Littelfuse LV UltraMOV Series				Supplier 1		Supplier 2	
			P/N (Max. Op. Temp. 85°C)	P/N (Max. Op. Temp. 125°C)	I _{max} (8/20) (A)	W _{max} (2ms0) (J)	I _{max} (8/20) (A)	W _{max} (2ms0) (J)	I _{max} (8/20) (A)	W _{max} (2ms0) (J)
5	11	14	V05E11P	V05P11P	500	2	100	0.3	250	0.4
7	11	14	V07E11P	V07P11P	1000	4	250	0.8	500	0.9
10	11	14	V10E11P	V10P11P	2000	8	500	1.7	1000	2.2
14	11	14	V14E11P	V14P11P	4000	22	1000	3.2	2000	4.3
20	11	14	V20E11P	V20P11P	8000	35	2000	10	3000	12