

Description:

Almost all electronic systems in internal-combustion powered vehicles, e.g., anti-lock brakes, direct ignition, airbag control, wiper motors, etc. are susceptible to damage from destructive voltage transients.

SEI/KEKO's AV Series of leaded automotive varistors includes both multilayer and single layer components, defined by W_{LD} capability. Multilayer devices are intended W_{LD} applications requiring up to 50 Joules of energy, and single layer discs are for W_{LD} applications requiring above 50 Joules of energy.



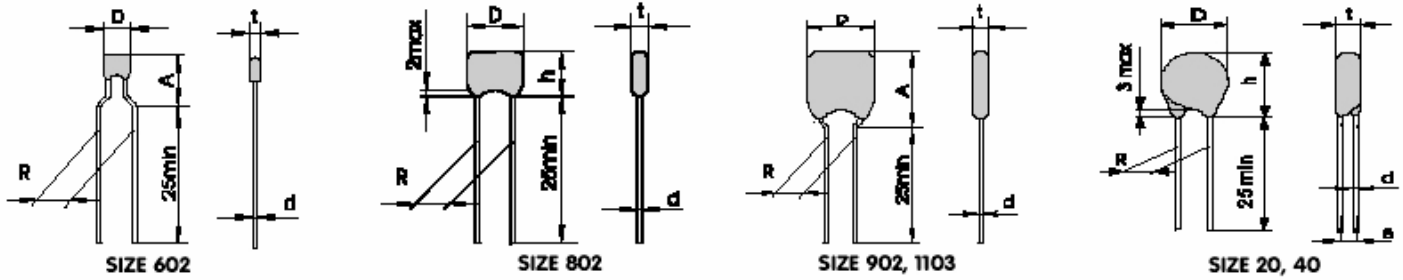
Automotive multilayer varistors offer excellent transient energy absorption due to improved internal energy distribution. Compared to an equivalent automotive disc varistor, they offer better electrical characteristic in much smaller size. Automotive disc varistors are specifically designed and used in applications requiring higher levels of W_{LD} energy absorption, which MLV devices are incapable of handling.

Features:

- ✓ AC operating voltage range (V_{rms}) from 14V to 35V
- ✓ DC operating voltage (V_{dc}) from 16V to 42V
- ✓ Power supply voltages (V_{dc}) 12V, 24V and 42V
- ✓ Broad range of current and energy handling capabilities realized with either type of construction
- ✓ In-line leads on automotive MLV varistors
- ✓ MLV varistors: +125°C continuous operating temperature (+150°C for AVY)
- ✓ W_{LD} up to 50J

General Technical Data		
Specification	MLV	SLV
Operating Ambient Temperature for W_{LD} above 50J - AV	-40°C to +150°C	-40°C to +85°C
Operating Ambient Temperature for W_{LD} above 50J - AVY	-40°C to +150°C	-40°C to +150°C
Storage Temperature Range for W_{LD} above 50J	-40°C to +85°C	-40°C to +125°C
Threshold Voltage Temperature Coefficient	≤0.05% / °C	
Insulation Resistance	> 1Gohm	
Response Time	< 25ns	
Climatic Category for W_{LD} ≤ 50J - MLV	40/125/56	40/85/56

Standard Packaging Options / Quantities					
Series	Voltage Range (V_{rms})	Model Size	Packaging Options: 7mm, 10mm, 14mm, 20mm and 23mm		
			B = Bulk; R = Reel; A = Ammo Pack		
			B	R	A
AV, AVY	14 - 35	60 2	1,500	2,000	2,000
	14 - 35	80 2	1,000	1,500	1,500
	14 - 35	90 2	1,000	1,500	1,500
	14 - 20	110 3	700	1,000	1,000
	25 - 35	20	400	700	800
	25 - 35	40	400	700	800



How to Order

SEI Type		Lead Style		Vrms	Tolerance	Disc Size		Lead Spacing		W _{LD}	Packaging	
AV		1		20	K	80		80		201	R1	
Type	Description	Model Size	Version	Code	Tolerance	Size		Code	Spacing	W _{LD}	Code	Description
AV	Standard	60 2	1 = Outward crimped	K	10%	60 = 6mm		2	5mm	003 = 3	B	Bulk
AVY	High Temp	80 2	1 = Straight leads			80 = 8mm		3	7.5mm	006 = 6	R	Reel
		80 2	5 = Straight with kink			90 = 9mm				012 = 12	A	Ammo
		90 2	1 = Inward crimped			110 = 11mm				025 = 25		
		110 3	1 = Inward crimped			20 = 20mm				050 = 50		
		20, 40	1 = Straight leads			40 = 40mm				100 = 100		

Device Ratings and Dimensions															
Part Number	V _{RMS} (volts)	V _{DC} (volts)	V _N (volts)	V _{JUMP} (volts)	V _C (volts)	I _C (amps)	I _P (amps)	W _{MAX} (joules)	W _{LD} (joules)	P _{MAX} (watts)	C _{TYP} (pF)	D _{MAX} (mm)	h _{MAX} (mm)	R (mm)	d (mm)
12V Power Supply															
AV 14 K 602 003	14	16	24	24.5	40	2.5	400	1.6	3	0.01	2,500	7	7	5	0.6
AV 17 K 602 003	17	20	27	30	44	2.5	400	1.8	3	0.01	2,000	7	7	5	0.6
AV 14 K 802 006	14	16	24	24.5	40	5	800	2.4	6	0.015	4,600	8	9	5	0.6
AV 17 K 802 006	17	20	27	30	44	5	800	2.9	6	0.015	4,000	8	9	5	0.6
AV 14 K 902 012	14	16	24	24.5	40	5	1,200	4.4	12	0.03	10,500	9	12	5	0.6
AV 14 K 902 025	14	16	24	24.5	40	10	2,000	6	25	0.08	22,000	9	12	5	0.6
AV 17 K 902 025	17	20	27	30	44	10	2,000	7.2	25	0.08	18,000	9	12	5	0.6
AV 14 K 1103 050	14	16	24	24.5	40	10	2,000	13.2	50	0.04	29,000	11	12	7.5	0.6
AV 17 K 1103 050	17	20	27	30	44	10	2,000	15.8	50	0.04	24,000	11	12	7.5	0.6
24V Power Supply															
AV 20 K 602 003	20	26	33	30	54	2.5	400	1.9	3	0.01	1,800	7	7	5	0.6
AV 30 K 602 003	30	34	47	50	77	2.5	400	2.3	3	0.01	1,300	7	7	5	0.6
AV 20 K 802 006	20	26	33	30	54	5	800	3	6	0.015	3,500	8	9	5	0.6
AV 30 K 802 006	30	34	47	50	77	5	800	3.8	6	0.015	2,000	8	9	5	0.6
AV 20 K 902 025	20	26	33	30	54	10	2,000	9	25	0.08	7,500	9	12	5	0.6
AV 30 K 902 025	30	34	47	50	77	10	2,000	18	25	0.08	16,000	9	12	5	0.6
AV 20 K 1103 050	20	26	33	30	54	10	2,000	17	50	0.1	18,000	11	12	7.5	0.6
AV 25 K 20 050	25	28	39	40	77	20	2,000	28	50	0.2	14,000	22.5	24	10	1
AV 30 K 20 050	30	34	47	50	93	20	2,000	34	50	0.2	13,500	22.5	24	10	1
AV 25 K 40 100	25	28	39	40	77	20	2,000	50	100	0.3	28,000	22.5	24	10	1
AV 30 K 40 100	30	34	47	50	93	20	2,000	60	100	0.3	26,000	22.5	24	10	1
42V Power Supply															
AV 35 K 602 003	35	42	56	59	90	2.5	400	2.6	3	0.01	1,000	7	7	5	0.6
AV 35 K 802 006	35	42	56	59	90	5	800	4.8	6	0.015	1,500	8	9	5	0.6
AV 35 K 902 025	35	42	56	59	90	10	2,000	20	25	0.8	12,800	9	12	5	0.6
AV 35 K 40 050	35	42	56	59	110	20	2,000	41	50	0.2	12,000	22.5	24	10	1
AV 35 K 40 100	35	42	56	59	110	20	2,000	76	100	0.3	23,000	22.5	24	10	1