



**Leaded Varistors (Cont.)**

Maximum Allowable Voltage (V)		Varistor Voltage @1mA ±10% (V)	Maximum Clamping Voltage		iMax. 8/20µs (A)	Dimensions (mm)						Digi-Key Part No.	Pricing			Epcos Part No.
AC	DC		V	A		LS ±1	A ±1	Ø (Max.)	T (Max.)	H (Max.)	ØD ±0.05		1	10	100	
300	385	470	775	50	6,000	7.5	2.3	15.5	5.6	18.5	0.8	495-1442-ND	1.51	11.44	81.87	S14K300E2
300	385	470	775	50	6,000	7.5	3.5	16.0	6.1	20.0	0.8	495-4292-ND	.79	6.00	42.91	S14K300E2K1
320	420	510	840	50	6,000	7.5	3.7	16.0	6.3	20.0	0.8	495-4293-ND	.79	6.00	42.91	S14K320E2K1
460	615	750	1240	50	6,000	7.5	5.1	16.5	8.5	20.5	0.8	495-4297-ND	1.18	9.30	69.73	S14K460E2K1
510	670	820	1355	50	6,000	7.5	5.4	17.0	8.9	21.0	0.8	495-4298-ND	1.53	12.35	94.31	S14K510E2K1
625	825	1,000	1650	50	6,000	7.5	6.4	17.0	9.9	21.0	0.8	495-4299-ND	1.79	14.53	110.99	S14K625E2K1
130	170	205	340	100	10,000	10.0	2.0	21.5	5.0	25.5	1.0	495-1443-ND	4.46	35.16	263.78	S20K130E2
140	180	220	360	100	10,000	10.0	2.1	21.5	5.1	25.5	1.0	495-1444-ND	3.20	25.26	189.48	S20K140E2
150	200	240	395	100	10,000	10.0	2.2	21.5	5.2	25.5	1.0	495-1445-ND	4.52	35.66	267.50	S20K150E2
175	225	270	455	100	10,000	10.0	2.3	21.5	5.3	25.5	1.0	495-1446-ND	4.34	34.18	256.36	S20K175E2
250	320	390	650	100	10,000	10.0	2.4	21.5	5.7	25.5	1.0	495-1447-ND	4.08	32.19	241.50	S20K250E2
275	350	430	710	100	10,000	10.0	2.6	21.5	5.8	25.5	1.0	495-1448-ND	3.96	31.21	234.07	S20K275E2
300	385	470	775	100	10,000	10.0	2.8	21.5	6.1	25.5	1.0	495-1449-ND	3.84	30.21	226.63	S20K300E2
<b>Fig. 1 — SuperioR Series — RoHS Compliant</b>																
275	350	430	710	100	12,000	10.0	3.5	22.5	6.5	27.0	1.0	495-4294-ND	1.63	13.22	100.95	S20K275E3K1
300	385	470	775	100	12,000	10.0	3.8	22.5	6.8	27.0	1.0	495-4295-ND	1.63	13.22	100.95	S20K300E3K1
320	420	510	840	100	12,000	10.0	3.9	22.5	6.9	27.0	1.0	495-4296-ND	1.63	13.22	100.95	S20K320E3K1
460	615	750	1240	100	12,000	10.0	5.3	22.5	8.9	27.5	1.0	495-4300-ND	1.95	15.74	120.22	S20K460E3K1
510	670	820	1355	100	10,000	10.0	5.6	23.0	9.3	28.0	1.0	495-4301-ND	2.65	21.37	166.71	S20K510E3K1
625	825	1,000	1650	100	10,000	10.0	6.6	23.0	10.3	28.0	1.0	495-4302-ND	2.65	21.37	166.71	S20K625E3K1
<b>Fig. 2 — Automotive Series</b>																
14	16	22	43	5.0	500	7.5	1.5	13.0	5.0	16.5	0.8	495-2054-ND	3.76	29.75	223.06	S10K14AUTO
14	16	22	43	10	1,000	7.5	1.5	17.0	5.0	20.5	0.8	495-1450-ND	4.68	36.96	277.20	S14K14AUTO
30	34	47	93	10	1,000	7.5	1.8	17.0	5.3	20.5	0.8	495-4264-ND	1.17	9.24	69.30	S14K30AUTO
14	16	22	43	20	2,000	10.0	1.6	23.0	5.4	27.5	1.0	495-1451-ND	13.93	112.42	876.84	S20K14AUTO
25	28	39	77	20	2,000	10.0	2.9	23.0	6.2	27.5	1.0	495-4265-ND	2.55	20.63	160.89	S20K25AUTO
30	34	47	93	20	2,000	10.0	3.2	23.0	6.5	27.5	1.0	495-4266-ND	2.55	20.63	160.89	S20K30AUTO

◆ RoHS Compliant



**Multilayer Chip Varistors for Surge and Static Protection**  
AVF, AVR and AVRL Series



**AVF Series:**

**Features:** • 2GHz or more of cutoff frequency in differential mode. • Superior electrostatic absorption characteristics due to reduction of varistor voltage. • Meeting Electrostatic Discharge Test IEC61000-4-2, HBM (human body model) contact 8kV.

**AVR/AVRL Series:**

**Features:** • No polarity due to symmetrical current voltage characteristics. • Excellent electrostatic absorption capability. • Can replace a Zener diode and capacitor combination. **Specifications:** • Operating Temperature Range: -40°C ~ 125°C

Fig. 1

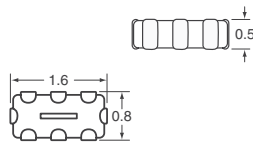
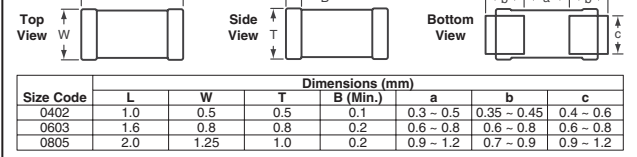


Fig. 2



**AVF Series**

Fig.	Size Code	Varistor Voltage (VDC @1mA)	Maximum Continuous Voltage (VDC)	No. of Circuits	Digi-Key Part No.	Cut Tape Pricing			Digi-Key Part No.	Tape and Reel Pricing 4,000	TDK Part No.
						1	10	100			
1	0603	12	5.5	1	445-5240-1-ND	.48	4.43	34.03	445-5240-2-ND	190.59/M	AVF16C212A000F205
		25	5.5	1	445-5241-1-ND	.48	4.43	34.03	445-5241-2-ND	190.59/M	AVF16C225A000F405

**AVR Series**

Fig.	Size Code	Varistor Voltage (VDC @1mA)	Maximum Continuous Voltage (VDC)	Clamping Voltage (8/20µs)	Maximum Peak Current (A)	Capacitance (pF)	Digi-Key Part No.	Cut Tape Pricing			Digi-Key Part No.	Tape and Reel		TDK Part No.
								1	10	100		Qty.	Pricing	
1	0402	8	5.5	14 (1A)	25	650	445-2532-1-ND	.10	.89	6.81	445-2532-2-ND	10,000	35.24/M	AVR-M1005C080MTAAB
		8	5.5	15 (1A)	3	100	445-2533-1-ND	.10	.89	6.81	445-2533-2-ND	10,000	35.24/M	AVR-M1005C080MTABB
		8	5.5	19 (1A)	1	33	445-2559-1-ND	.10	.89	6.81	445-2559-2-ND	10,000	35.24/M	AVR-M1005C080MTACB
		12	7.5	20 (1A)	10	130	445-2534-1-ND	.10	.89	6.81	445-2534-2-ND	10,000	35.24/M	AVR-M1005C120MTAAB
		27	15	50 (1A)	4	40	445-2535-1-ND	.10	.89	6.81	445-2535-2-ND	10,000	35.24/M	AVR-M1005C270MTAAB
		27	15	50 (1A)	1	15	445-2536-1-ND	.10	.89	6.81	—	—	—	—
2	0603	8	5.5	15 (2A)	30	650	445-2537-1-ND	.14	1.33	10.21	445-2537-2-ND	4,000	56.86/M	AVR-M1608C080MTAAB
		12	7.5	20 (2A)	50	1,050	445-2538-1-ND	.14	1.33	10.21	445-2538-2-ND	4,000	56.86/M	AVR-M1608C120MT6AB
		12	7.5	20 (2A)	15	400	445-2539-1-ND	.14	1.33	10.21	445-2539-2-ND	4,000	56.86/M	AVR-M1608C120MT2AB
		18	11	30 (2A)	30	600	445-2540-1-ND	.14	1.33	10.21	445-2540-2-ND	4,000	56.86/M	AVR-M1608C180MT6AB
		22	16	34 (2A)	30	560	445-2541-1-ND	.14	1.33	10.21	445-2541-2-ND	4,000	56.86/M	AVR-M1608C220KT6AB
		22	16	37 (2A)	10	210	445-2542-1-ND	.14	1.33	10.21	445-2542-2-ND	4,000	56.86/M	AVR-M1608C220KT2AB
		27	19	42 (2A)	48	430	445-2543-1-ND	.14	1.33	10.21	445-2543-2-ND	4,000	56.86/M	AVR-M1608C270KT6AB
		27	19	42 (2A)	20	160	445-2544-1-ND	.14	1.33	10.21	445-2544-2-ND	4,000	56.86/M	AVR-M1608C270KT2AB
		27	17	52 (2A)	2	30	445-2545-1-ND	.14	1.33	10.21	445-2545-2-ND	4,000	56.86/M	AVR-M1608C270MTAAB
		27	17	52 (2A)	2	15	445-2546-1-ND	.14	1.33	10.21	445-2546-2-ND	4,000	56.86/M	AVR-M1608C270MTABB
0805	0603	12	7.5	20 (5A)	60	1,000	445-2547-1-ND	.26	2.43	18.72	445-2547-2-ND	2,000	104.91/M	AVR-M2012C120MT6AB
		22	16	38 (5A)	100	800	445-2548-1-ND	.26	2.43	18.72	445-2548-2-ND	2,000	104.91/M	AVR-M2012C220KT6AB
		39	28	62 (5A)	100	430	445-2549-1-ND	.26	2.43	18.72	445-2549-2-ND	2,000	104.91/M	AVR-M2012C390KT6AB

**AVRL Series**

Fig.	Size Code	Typical Varistor Voltage (VDC @1mA)	Maximum Continuous Voltage (VDC)	Capacitance (pF)	Digi-Key Part No.	Cut Tape Pricing			Digi-Key Part No.	Tape and Reel		TDK Part No.
						1	10	100		Qty.	Pricing	
2	0402	90	10	1.1	445-2560-1-ND	.14	1.33	10.21	445-2560-2-ND	10,000	52.86/M	AVRL101A1R1NTA
		39	10	1.1	445-2561-1-ND	.14	1.33	10.21	445-2561-2-ND	10,000	52.86/M	AVRL101A1R1NTB
		27	10	3.3	445-2562-1-ND	.14	1.33	10.21	445-2562-2-ND	10,000	52.86/M	AVRL101A3R3FTA
	0603	27	10	6.8	445-2563-1-ND	.14	1.33	10.21	—	—	—	—
		90	10	1.1	445-2564-1-ND	.19	1.77	13.62	445-2564-2-ND	4,000	76.08/M	AVRL161A1R1NTA
		39	10	1.1	445-2565-1-ND	.19	1.77	13.62	445-2565-2-ND	4,000	76.08/M	AVRL161A1R1NTB
		27	10	3.3	445-2566-1-ND	.19	1.77	13.62	445-2566-2-ND	4,000	76.08/M	AVRL161A3R3FTA

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