Varistors - continued

Metal Oxide Varistors - continued

			Transient	Peak Transient		Order
230	300	360	130	8000	B72220S231K101	100-4287
25	31	39	26	2000	B72220S250K101	100-4284
250	320	360	140	8000	B72220S251K101	100-4357
275	350	430	151	8000	B72220S271K101	100-4363
30	38	47	26	2000	B72220S300K101	100-4275
300	385	470	173	8000	B72220S301K101	100-4392
320	420	510	184	8000	B72220S321K101	100-4305
35	45	56	33	2000	B72220S350K101	100-4321
385	505	220	150	8000	B72220S381K101	100-4393
40	56	68	37	2000	B72220S400K101	100-4316
420	560	680	175	8000	B72220S421K101	100-4394
460	615	750	195	8000	B72220S461K101	100-4272
50	65	82	27	6500	B72220S500K101	100-4301
510	670	820	190	6500	B72220S511K101	100-4395
60	85	100	33	6500	B72220S600K101	100-4280
625	825	1000	230	6500	B72220S621K101	100-4397
75	100	120	40	6500	B72220S750K101	100-4302
95	125	150	50	6500	B72220S950K101	100-4304

204010

	Price Each					
Order Code	1+	50+	100+	250+	+	+
All Values ●	59.00	50.00	43.00	35.00	– –	– –

Littelfuse Varistors

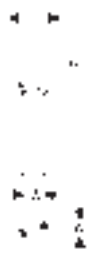
These varistors are voltage dependent, symmetrical, metal oxide semiconductor devices. Their characteristics enable them to protect against high transient voltage spikes (when properly selected) to meet anticipated loads. When the protected equipment or circuit encounters high voltage spikes, the varistor impedance changes from a very high standby value to a very low conducting value, thus clamping the transient voltage to a protective level. The excess energy of the incoming high voltage pulse is absorbed by the varistor, protecting voltage sensitive components against damage.

204216

Metal Oxide Varistors – PA/MA/LA/ZA/HA Series

Package k. Package a Packages b, c, d, e, g, h. Packages l, m, n

	W	Dia.	Lead L	Lead Dia.	Lead Spacing A	Lead Spacing B
a	4	3.68	29	0.83	–	–
b	5.6	12.5	25.4	0.86	7.5	2.5
c	5.6	8.7	25.4	0.68	5.0	2.5
d	5.6	16.4	25.4	0.86	7.5	2.5
e	5.6	22.5	25.4	0.86	7.5	2.5
g	7.3	16.4	25.4	0.86	7.5	4.0
h	7.3	22.5	25.4	0.86	7.5	4.0



Packages b, c, d, e, g, h.

	Body Dia.	Body Thickness	Fix Cent	Fix Hole Dia.
k	33.5	14.3	50.8	6
l	35.5	9	25	4.2
m	35.5	10.3	25.0	4.2
n	42.5	9	25	4.2

	PA Series	MA Series	LA/ZA Series	HA Series
Operating ambient temperature	-40°C to +85°C	-55°C to +75°C	-55°C to +85°C	-55°C to +85°C
Test withstand voltage	–	1000V dc	2500V dc	2500V dc
Insulation resistance	–	>1000MΩ	>1000MΩ	>1000MΩ
Voltage temp. coefficient	–	-0.03%/°C	-0.05%/°C	0.01%/°C

204218

PA Series(Bolt Down Package)

Maximum ratings (25 °C)

AC Working Voltage (V)	DC Working Voltage (V)	Transient Energy (10/1000µs) (Joules)	Peak Transient Current 8/20µs A	Varistor Voltage @ 1mA dc V min	V nom	V max	Order Code
130	175	70	6500	184	200	200	318-190
250	330	130	6500	354	390	390	318-206
275	369	140	6500	389	430	430	318-218
480	640	180	6500	670	750	750	318-220

Mftrs. List No. and Device Marking
V130PA20A = 318-190, V250PA40A = 318-206, V275PA40A = 318-218, V480PA80A = 318-220

204219

AC Voltage	Energy (Joules)	Package	Order Code	Price Each 1+	25+	100+	1K+
130	70	k	**318-190**	1,026.00	850.00	722.00	574.00
250	130	k	**318-206**	1,026.00	850.00	769.00	– –
275	140	k	**318-218**	1,137.00	925.00	784.00	662.00
480	180	k	**318-220**	1,026.00	850.00	722.00	574.00

ZA Series (Radial Lead Package)

Maximum Ratings (25° C)

AC Working Voltage (V)	DC Working Voltage (V)	Transient Energy (10/1000µs) (Joules)	Peak Transient Current (8/20µs) (A)	Varistor Voltage @ 1mA dc V min	V nom	V max	Device Marking	Mftrs. List No.	Order Code
4	5.5	0.4	100	6	8.2	11	08Z1	V8ZA1P	105-7154
4	5.5	0.8	250	6	8.2	11	08Z2	V8ZA2P	105-7155
6	8	1.2	250	9	12	16	12Z2	V12ZA2P	105-7156
10	14	0.8	250	14.4	18	21.6	18Z1	V18ZA1P	105-7158
10	14	3.5	1000	14.4	18	21.6	18Z3	V18ZA3P	105-7159
14	18	0.9	250	18.7	22	26	22Z1	V22ZA1P	105-7160
14	18	4.0	1000	18.7	22	26	22Z3	V22ZA3P	105-7161
14	18	100	2000	19.2	24	26	24Z50	V24ZA50P	105-7162
17	22	1.0	250	23	27	31.1	27Z1	V27ZA1P	105-7137
17	22	5.0	1000	23	27	31.1	27Z4	V27ZA4P	105-7163
20	26	1.2	250	29.5	33	36.5	33Z1	V33ZA1P	105-7164
20	26	6.0	1000	29.5	33	36.5	33Z5	V33ZA5P	105-7166
21	27	150	2000	29.5	33	36.5	P33Z70	V33ZA70P	105-7167
25	31	1.5	250	35	39	43	39Z1	V39ZA1P	105-7168
25	31	7.2	1000	35	39	43	39Z6	V39ZA6P	105-7171
30	38	1.8	250	42	47	52	47Z1	V47ZA1P	105-7172
30	38	8.8	1000	42	47	52	47Z7	V47ZA7P	105-7173
35	45	2.3	250	50	56	62	56Z2	V56ZA2P	105-7174
35	45	10	1000	50	56	62	56Z8	V56ZA8P	105-7175
40	56	3.0	250	61	68	75	68Z2	V68ZA2P	105-7138
40	56	13	1000	61	68	75	68Z10	V68ZA10P	105-7176
50	66	4.0	250	74	82	91	82Z2	V82ZA2P	105-7177
50	66	15	4500	73	82	91	82Z12	V82ZA12P	105-7139
60	81	20	4500	90	100	110	100Z15	V100ZA15P	105-7140
60	81	5.0	1200	90	100	110	100Z	V100ZA3P	105-7178
75	102	6	1200	108	120	132	120Z	V120ZA1P	105-7179
75	102	22	4500	108	120	132	120Z6	V120ZA6P	105-7141
95	127	30	4500	135	150	165	150Z8	V150ZA8P	105-7142
115	153	10	1200	162	180	198	180Z	V180ZA1P	105-7143
115	153	35	4500	162	180	198	180Z10	V180ZA10P	105-7144

Mftrs. List No

204221

Order Multiple=5

AC Voltage	Energy (Joules)	Package	Order Code	Price Each 5+	25+	100+	1K+
4	0.4	b	**105-7154** ●	23.00	19.00	17.00	14.00
4	0.8	b	**105-7155** ●	96.00	78.00	66.00	52.00
6	1.2	b	**105-7156** ●	96.00	78.00	66.00	52.00
10	0.8	c	**105-7158** ●	12.00	10.00	9.00	8.00
10	3.5	d	**105-7159** ●	73.00	61.00	52.00	40.00
14	0.9	c	**105-7160** ●	12.00	10.00	9.00	8.00
14	4.0	d	**105-7161** ●	41.00	34.00	29.00	23.00
14	100	e	**105-7162** ●	43.00	36.00	30.00	24.00
17	1.0	c	**105-7137** ●	10.00	10.00	– –	– –
17	5.0	d	**105-7163** ●	41.00	34.00	29.00	23.00
20	1.2	c	**105-7164** ●	11.00	9.00	7.00	6.00
20	6.0	d	**105-7166** ●	38.00	31.00	25.00	22.00
21	150	e	**105-7167** ●	43.00	36.00	30.00	24.00
25	1.5	c	**105-7168** ●	12.00	10.00	8.00	7.00
25	7.2	d	**105-7171** ●	25.00	20.00	17.00	14.00
30	1.8	c	**105-7172** ●	12.00	– –	– –	– –
30	8.8	d	**105-7173** ●	24.00	19.00	16.00	13.00
35	2.3	c	**105-7174** ●	11.00	9.00	8.00	7.00
35	10	d	**105-7175** ●	41.00	34.00	29.00	23.00
40	3.0	c	**105-7138** ●	11.00	11.00	8.00	7.00
40	13	d	**105-7176** ●	41.00	34.00	29.00	23.00
50	4.0	c	**105-7177** ●	10.00	8.00	7.00	6.00
50	15	d	**105-7139** ●	80.00	65.00	57.00	46.00
60	20	c	**105-7140** ●	20.00	16.00	13.00	11.00
60	5.0	d	**105-7178** ●	12.00	10.00	9.00	8.00
75	6	c	**105-7179** ●	22.00	18.00	14.00	12.00
75	22	d	**105-7141** ●	46.00	38.00	33.00	25.00
95	30	c	**105-7142** ●	96.00	78.00	66.00	52.00
115	10	b	**105-7143** ●	22.00	18.00	14.00	12.00
115	35	b	**105-7144** ●	46.00	38.00	33.00	25.00

LA Series (Radial Lead Package)

Maximum Ratings (25°C)

AC Working Voltage (V)	DC Working Voltage (V)	Transient Energy (10/1000µs) (Joules)	Peak Transient Current (8/20µs) (A)	Varistor Voltage @ 1mA dc V min	V nom	V max	Device Marking	Mftrs. List No.	Order Code
130	175	11	1200	184	200	228	1302	V130LA2P	105-7180
130	175	20	2500	184	200	228	1305	V130LA5P	105-7181
130	175	38	4500	184	200	228	130L10	V130LA10AP	105-7183
130	175	70	6500	184	200	228	130L20	V130LA20AP	105-7184
130	175	70	6500	184	200	220	130L20B	V130LA20BP	105-7185
150	200	13	1200	212	240	268	1502	V150LA2P	105-7186
150	200	25	2500	212	240	268	1505	V150LA5P	105-7187
150	200	45	4500	212	240	268	150L10	V150LA10AP	105-7188
150	200	80	6500	212	240	268	150L20	V150LA20AP	105-7189

Prices are in Thai Baht and exclude 7% VAT.
Due to the volatile nature of certain products, prices are subject to change without notice.