VICTORY ENGINEERING CORPORATION
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TWX: 710-983-4430 TEL: 201-379-5900 PRODUCT BULLETIN [redacted] REV 1

VM2133

NEW

Metal Oxide Varistors

IMPROVED

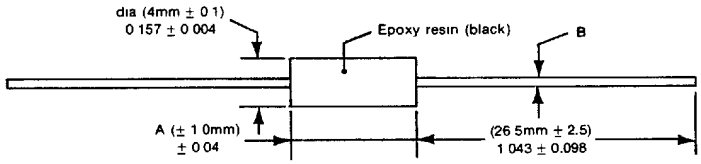
Victory Engineering, a world leader in the manufacture of thermistors and varistors, through extensive research is now manufacturing Metal Oxide Varistors which have improved response times, increased current capability and a minimum change in energy lifetime characteristics with repeated pulses. Veco's Metal Oxide Varistors exhibit no follow-on current limitation, a low standby power consumption and superior clamping characteristics.

Metal Oxide Varistors have symmetrical, sharp breakdown characteristics, which are capable of suppressing transients from the sudden release of stored energy and extraneous sources. Metal Oxide Varistors are finding increased utilization in power supply protection, line transient damage and extending relay contact life. In addition they have been UL approved for "across-the line components" (E72976 [M]).

Veco is ready to share its experience and specialized expertise in this area along with its overall knowledge in bead, disc and chip thermistors with you the favored customer.

Part Number	Steady State rms Volts	Steady State DC Volts	Max. Clamping Voltage at Test Current Volts	Max. Clamping Voltage at Test Current Amps	Energy Joules
V27A-1	17	21	50	1	.15
V33A-2	21	26	60	1	.25
V39A-2	26	31	73	1	.25
V47A-3	30	38	85	1	.30
V56A-3	35	45	103	1	.30
V68A-3	43	55	120	1	.45
V82A-5	52	66	145	1	.55
V100A-2	63	81	170	1	.55
V120A-2	76	97	200	1	.55
V150A-3	95	121	230	1	.60
V180A-3	114	145	285	1	.70
V220A-4	140	178	355	1	.95
V270A-4	171	218	435	1	.95
V330A-5	210	267	535	1	1.0
V370A-5	235	299	600	1	1.0
V390A-6	248	315	635	1	1.3
V430A-7	273	348	695	1	1.65

Dimensions — A Series



Dimensions (mm) A

VOLTAGE	A INCH	A mm	B INCH	B mm
27 ~ 82V	0.276	7.0	0.024	0.60
100 ~ 400V	0.295	7.5	0.026	0.65

Part Number	Steady State rms Volts	Steady State DC Volts	Max. Clamping Voltage at Test Current Volts	Max. Clamping Voltage at Test Current Amps	Energy Joules
V18Z-0	10	12	50	1	.5
V18Z-1	10	12	45	2.5	.9
V18Z-2	10	12	45	5	1.6
V18Z-3	10	12	45	10	3.4
V22Z-0	13	16	55	1	.6
V22Z-1	13	16	50	2.5	1
V22Z-2	13	16	50	5	3
V22Z-3	13	16	50	10	4
V24Z-0	14	18	60	1	.7
V24Z-1	14	18	55	2.5	1.5
V24Z-2	14	18	55	5	2
V24Z-4	14	18	55	10	4
V27Z-0	17	22	63	1	.8
V27Z-1	17	22	60	2.5	1.5
V27Z-2	17	22	60	5	3.0
V27Z-4	17	22	60	10	5.0
V33Z-0	20	26	75	1	1.0
V33Z-1	20	26	70	2.5	1.5
V33Z-2	20	26	70	5	3.0
V33Z-5	20	26	70	10	5.0
V39Z-0	25	31	85	1	1.0
V39Z-2	25	31	80	2.5	2.0
V39Z-4	25	31	80	5	3.5
V39Z-6	25	31	80	10	6.5
V47Z-0	30	38	105	1	1.4
V47Z-2	30	38	95	2.5	2.5
V47Z-4	30	38	95	5	5.0
V47Z-7	30	38	95	10	8.0
V56Z-0	35	45	125	1	1.5
V56Z-2	35	45	110	2.5	3.0
V56Z-4	35	45	110	5	5.0
V56Z-8	35	45	110	10	10.0
V68Z-0	43	55	150	1	2.0
V68Z-2	43	55	135	2.5	3.0
V68Z-5	43	55	135	5	7.0
V68Z-10	43	55	135	10	12.0
V82Z-0	52	66	160	5	2.5
V82Z-2	52	66	150	10	4.0
V82Z-6	52	66	150	35	10.0
V82Z-12	52	66	150	50	14.0
V100Z-0	63	80	190	5	3.0
V100Z-3	63	80	175	10	6.0
V100Z-9	63	80	175	35	12.0
V100Z-15	63	80	175	50	20.0

Features

- High transient current capability — up to 6500A.
- Fast response time — less than 35ns.
- Excellent voltage clamping characteristics.
- Low standby current.
- Very low leakage current.
- Low capacitance.
- Low overshoot characteristics
- Low leakage factor.
- Epoxy coating for maximum protection from heat, humidity, shock, and vibration.
- Fully U.L. recognized.

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