

## Z10D Series

### Specifications

Part No.	Varistor Voltage	Maximum Allowable Voltage		Clamping Voltage (max.)	Rated Power	Maximum Energy		Maximum Peak Current (8/20 $\mu$ s)		Capacitance (max.) 1kHz
						(10/1000 $\mu$ s)	(2ms)	1 time	2 times	
						(J)	(J)	(A)	(A)	
	V <sub>1mA</sub> (V)	AC <sub>rms</sub> (V)	DC(V)	V(V)	(W)	(J)	(J)	(A)	(A)	(pF)
Z10D180	18(16-20)	11	14	36 at 5A	0.05	2.6	2.2	1000	500	16000
Z10D220	22(20-24)	14	18	43	0.05	3.2	2.6	1000	500	11000
Z10D270	27(24-30)	17	22	53	0.05	3.9	3.2	1000	500	8000
Z10D330	33(30-36)	20	26	65	0.05	4.8	4.0	1000	500	6300
Z10D390	39(35-43)	25	31	77	0.05	5.6	4.7	1000	500	5200
Z10D470	47(42-52)	30	38	93	0.05	6.8	5.6	1000	500	4600
Z10D560	56(50-62)	35	45	110	0.05	8.1	6.7	1000	500	3750
Z10D680	68(61-75)	40	56	135	0.05	9.8	8.2	1000	500	2800
* Z10D820	82(74-90)	50	65	135 at 25A	0.4	14	10	3500	2500	2000
* Z10D101	100(90-110)	60	85	165	0.4	17	12	3500	2500	1700
* Z10D121	120(108-132)	75	100	200	0.4	20	14.5	3500	2500	1400
* Z10D151	150(135-165)	95	125	250	0.4	25	18	3500	2500	1100
* Z10D201	200(185-225)	130	170	340	0.4	35	25	3500	2500	430
* Z10D221	220(198-242)	140	180	360	0.4	39	27.5	3500	2500	410
* Z10D241	240(216-264)	150	200	395	0.4	42	30	3500	2500	380
* Z10D271	270(247-303)	175	225	455	0.4	49	35	3500	2500	350
* Z10D331	330(297-363)	210	270	545	0.4	58	42	3500	2500	300
* Z10D361	360(324-396)	230	300	595	0.4	65	45	3500	2500	300
* Z10D391	390(351-429)	250	320	650	0.4	70	50	3500	2500	300
* Z10D431	430(387-473)	275	350	710	0.4	80	55	3500	2500	270
* Z10D471	470(423-517)	300	385	775	0.4	85	60	3500	2500	230
* Z10D511	510(459-561)	320	410	845	0.4	92	67	3500	2500	210
* Z10D561	560(504-616)	350	450	930	0.4	92	67	3500	2500	200
* Z10D681	680(612-748)	420	560	1120	0.4	92	67	3500	2500	170
* Z10D751	750(675-825)	460	615	1240	0.4	100	70	3500	2500	160
* Z10D821	820(738-902)	510	670	1355	0.4	110	80	3500	2500	140
* Z10D911	910(819-1001)	550	745	1500	0.4	130	90	3500	2500	120
* Z10D102	1000(900-1100)	625	825	1650	0.4	140	100	3500	2500	110

## Z15D Series

### Specifications

Part No.	Varistor Voltage	Maximum Allowable Voltage		Clamping Voltage (max.)	Rated Power	Maximum Energy		Maximum Peak Current (8/20 $\mu$ s)		Capacitance (max.) 1kHz
						(10/1000 $\mu$ s)	(2ms)	1 time	2 times	
						(J)	(J)	(A)	(A)	
	V <sub>1mA</sub> (V)	AC <sub>rms</sub> (V)	DC(V)	V(V)	(W)	(J)	(J)	(A)	(A)	(pF)
Z15D180	18(16-20)	11	14	36 at 10A	0.1	5.2	4.3	2000	1000	25000
Z15D220	22(20-24)	14	18	43	0.1	6.3	5.3	2000	1000	20000
Z15D270	27(24-30)	17	22	53	0.1	7.8	6.5	2000	1000	16000
Z15D330	33(30-36)	20	26	65	0.1	9.5	7.9	2000	1000	12200
Z15D390	39(35-43)	25	31	77	0.1	11	9.4	2000	1000	7000
Z15D470	47(42-52)	30	38	93	0.1	14	11	2000	1000	6750
Z15D560	56(50-62)	35	45	110	0.1	16	13	2000	1000	6500
Z15D680	68(61-75)	40	56	135	0.1	20	16	2000	1000	5500
* Z15D820	82(74-90)	50	65	135 at 50A	0.6	28	20	6000	4500	3700
* Z15D101	100(90-110)	60	85	165	0.6	35	25	6000	4500	3200
* Z15D121	120(108-132)	75	100	200	0.6	42	30	6000	4500	2700
* Z15D151	150(135-165)	95	125	250	0.6	53	37.5	6000	4500	2200
* Z15D201	200(185-225)	130	170	340	0.6	70	50	6000	4500	770
* Z15D221	220(198-242)	140	180	360	0.6	78	55	6000	4500	740
* Z15D241	240(216-264)	150	200	395	0.6	84	60	6000	4500	700
* Z15D271	270(247-303)	175	225	455	0.6	99	70	6000	4500	640
* Z15D331	330(297-363)	210	270	545	0.6	115	80	6000	4500	580
* Z15D361	360(324-396)	230	300	595	0.6	130	90	6000	4500	540
* Z15D391	390(351-429)	250	320	650	0.6	140	100	6000	4500	500
* Z15D431	430(387-473)	275	350	710	0.6	155	110	6000	4500	450
* Z15D471	470(423-517)	300	385	775	0.6	175	125	6000	4500	400
* Z15D511	510(459-561)	320	410	845	0.6	190	136	6000	4500	350
* Z15D561	560(504-616)	350	450	930	0.6	190	136	6000	4500	340
* Z15D681	680(612-748)	420	560	1120	0.6	190	136	5000	4500	320
* Z15D751	750(675-825)	460	615	1240	0.6	210	150	5000	4500	310
* Z15D821	820(738-902)	510	670	1355	0.6	235	165	5000	4500	280
* Z15D911	910(819-1001)	550	745	1500	0.6	255	180	5000	4500	250
* Z15D102	1000(900-1100)	625	825	1650	0.6	280	200	5000	4500	230

1. Operating temperature range: -40 to 85°C

2. Storage temperature range: -40 to 125°C

\* UL 1449 approved model