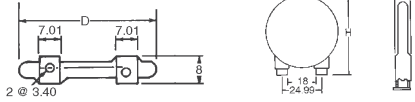


# Panasonic ZNR/Surge Absorbers With Tabs – Type C Series 32 and 40

These are heavy duty type ZNR with very unique tab terminals which are used as electrical connecting terminals and also its mounting legs. This ZNR is meant for application in power supplies or transient voltage surge suppressor units where high surge current or high surge energy absorption is required.

- Features:** • High energy handling capability (210 to 710 joules) • Large withstanding surge current (25 to 30kA) • Compact size  
• Common terminals for electrical connection and mounting • UL recognized



Series	Type	Max. Allow. Volt. (V)		Varistor Volt. ±10% (V)	Max. Clamp Volt. @ Test Current (8/20µsec.)		Surge Current (kA)	Dimensions (mm)			Digi-Key Part No.	Pricing					Panasonic Part No.	
		AC	DC		Vc(V)	Lp(A)		D max.	T ±.99	H max.		1	10	100	500	1,000		2,500
32	C	130	170	200	340	200	25	35.99	7.49	46.00	P7158-ND	13.00	95.09	787.66	3621.68	6898.44	6656.49/M	ERZ-C32CK201W
		150	200	240	395	200	25	35.99	7.49	46.00	P7159-ND	14.19	103.78	859.74	3953.13	7529.78	7265.68/M	ERZ-C32CK241W
		230	300	360	595	200	25	35.99	8.99	46.00	P7160-ND	13.59	104.03	880.83	4031.13	7779.48	7520.78/M	ERZ-C32CK361W
		250	320	390	650	200	25	35.99	8.99	46.00	P7161-ND	13.59	104.03	880.83	4031.13	7779.48	7520.78/M	ERZ-C32CK391W
		275	350	430	710	200	25	35.99	8.99	46.00	P7162-ND	13.68	101.52	840.99	3866.92	7365.57	7107.22/M	ERZ-C32CK431W
		385	505	620	1025	200	25	35.99	9.70	46.00	P7163-ND	15.32	117.31	993.35	4546.08	8773.27	8481.51/M	ERZ-C32CK621W
		420	560	680	1120	200	25	35.99	9.70	46.00	P7164-ND	13.44	102.85	870.90	3985.70	7691.80	7436.00/M	ERZ-C32CK681W
		460	615	750	1240	200	25	35.99	11.51	46.00	P7165-ND	15.32	117.31	993.35	4546.08	8773.27	8481.51/M	ERZ-C32CK751W
		485	640	780	1290	200	25	35.99	11.51	46.00	P7166-ND	15.32	117.31	993.35	4546.08	8773.27	8481.51/M	ERZ-C32CK781W
		510	670	820	1355	200	25	35.99	11.51	46.00	P7167-ND	16.70	127.85	1082.54	4954.22	9560.91	9242.96/M	ERZ-C32CK821W
40	C	130	170	200	340	250	30	43.99	7.49	50.01	P7169-ND	19.04	145.72	1233.90	5646.93	10897.74	10535.33/M	ERZ-C40CK201W
		150	200	240	395	250	30	43.99	7.49	50.01	P7170-ND	19.04	145.72	1233.90	5646.93	10897.74	10535.33/M	ERZ-C40CK241W
		230	300	360	595	250	30	43.99	8.99	50.01	P7171-ND	20.30	155.35	1315.41	6020.00	11617.70	11231.34/M	ERZ-C40CK361W
		250	320	390	650	250	30	43.99	8.99	50.01	P7172-ND	20.30	155.35	1315.41	6020.00	11617.70	11231.34/M	ERZ-C40CK391W
		275	350	430	710	250	30	43.99	8.99	50.01	P7173-ND	20.30	155.35	1315.41	6020.00	11617.70	11231.34/M	ERZ-C40CK431W
		385	505	620	1025	250	30	43.99	9.70	50.01	P7174-ND	18.41	140.92	1193.14	5460.40	10537.76	10187.32/M	ERZ-C40CK621W
		420	560	680	1120	250	30	43.99	9.70	50.01	P7175-ND	18.41	140.92	1193.14	5460.40	10537.76	10187.32/M	ERZ-C40CK681W
		460	615	750	1240	250	30	43.99	11.51	50.01	P7176-ND	23.83	182.38	1544.28	7067.44	13639.10	13185.52/M	ERZ-C40CK751W
		485	640	780	1290	250	30	43.99	11.51	50.01	P7177-ND	23.83	182.38	1544.28	7067.44	13639.10	13185.52/M	ERZ-C40CK781W
		510	670	820	1355	250	30	43.99	11.51	50.01	P7178-ND	24.78	189.71	1606.29	7351.22	14186.76	13714.96/M	ERZ-C40CK821W
550	745	910	1500	250	30	43.99	11.51	50.01	P7179-ND	24.72	196.62	1694.08	7784.10	15050.46	—	ERZ-C40CK911W		

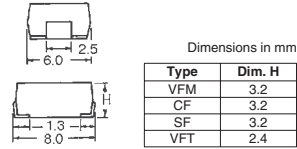
◆ RoHS Compliant

## Surface Mount ZNR/Surge Absorbers Type VFM, CF, SF and VFT

- Features:**
- Temperature Char. of Varistor Voltage 0 ~ -0.05%/°C
  - Operating Temperature Range: -40°C ~ 85°C
  - Storage Temperature Range: -40°C ~ 125°C
  - Designed for flow/reflow soldering
  - Excellent response against high steep surge voltage

- Compact package with large withstanding surge capability
- Low Clamping Voltage for better surge protection
- SF Type has the ability to withstand 2 or 3 times the surge current of the CF Type
- VFT Type has low height

- Applications:**
- For suppression of surge in electronic equipment
  - Telephone or telecommunication system
  - DAA modules, modem
  - Router, Terminal adapter (Digital modem)
  - Power supply



Type	Varistor Voltage ±10% (V)	Max. Allowable Voltage (V)		Max. Clamping Voltage V <sub>XA</sub> (V)‡	Rated Power (W)	Energy (Jms)	Maximum Peak Current (A)	Digi-Key Part No.	Cut Tape Price Each			Digi-Key Part No.	Tape and Reel Pricing		Panasonic Part No.
		AC	DC						1	10	100		2,000	6,000	
VFM	22	14	18	43	0.02	0.9	125	P7345CT-ND	2.39	1.56	1.20	P7345TR-ND	916.12/M	838.78/M	ERZ-VF2M220
	27	17	22	53	0.02	1.0	125	P7346CT-ND	2.39	1.56	1.20	P7346TR-ND	916.12/M	838.78/M	ERZ-VF2M270
	33	20	26	65	0.02	1.2	125	P7347CT-ND	2.39	1.56	1.20	P7347TR-ND	916.12/M	838.78/M	ERZ-VF2M330
	39	25	31	77	0.02	1.5	125	P7348CT-ND	2.39	1.56	1.20	P7348TR-ND	916.12/M	838.78/M	ERZ-VF2M390
	47	30	38	93	0.02	1.8	125	P7349CT-ND	2.39	1.56	1.20	P7349TR-ND	916.12/M	838.78/M	ERZ-VF2M470
	56	35	45	110	0.02	2.2	125	P7350CT-ND	2.39	1.56	1.20	P7350TR-ND	916.12/M	838.78/M	ERZ-VF2M560
	68	40	56	135	0.02	2.5	125	P7351CT-ND	2.39	1.56	1.20	P7351TR-ND	916.12/M	838.78/M	ERZ-VF2M680
	82	50	65	165	0.1	3.0	600	P7337CT-ND	2.39	1.56	1.20	P7337TR-ND	916.12/M	838.78/M	ERZ-VF2M820
	100	60	85	165	0.1	3.0	600	P7338CT-ND	2.39	1.56	1.20	P7338TR-ND	916.12/M	838.78/M	ERZ-VF2M101
	120	75	100	200	0.1	3.5	600	P7339CT-ND	2.39	1.56	1.20	P7339TR-ND	916.12/M	838.78/M	ERZ-VF2M121
	150	95	125	250	0.1	4.5	600	P7340CT-ND	2.39	1.56	1.20	P7340TR-ND	916.12/M	838.78/M	ERZ-VF2M151
	200	130	170	340	0.1	6.0	600	P7341CT-ND	2.39	1.56	1.20	P7341TR-ND	916.12/M	838.78/M	ERZ-VF2M201
	220	140	180	360	0.1	6.5	600	P7342CT-ND	2.39	1.56	1.20	P7342TR-ND	916.12/M	838.78/M	ERZ-VF2M221
	240	150	200	395	0.1	7.5	600	P7343CT-ND	2.39	1.56	1.20	P7343TR-ND	916.12/M	838.78/M	ERZ-VF2M241
	270	175	225	455	0.1	8.0	600	P7344CT-ND	2.39	1.56	1.20	P7344TR-ND	916.12/M	838.78/M	ERZ-VF2M271
	300	210	270	545	0.1	8.0	300	P7352CT-ND	2.39	1.56	1.20	P7352TR-ND	916.12/M	838.78/M	ERZ-VF2M301
360	230	300	595	0.1	9.0	300	P7353CT-ND	2.39	1.56	1.20	P7353TR-ND	916.12/M	838.78/M	ERZ-VF2M361	
390	250	320	650	0.1	9.0	300	P7354CT-ND	2.39	1.56	1.20	P7354TR-ND	916.12/M	838.78/M	ERZ-VF2M391	
430	275	350	710	0.1	10.0	300	P7355CT-ND	2.39	1.56	1.20	P7355TR-ND	916.12/M	838.78/M	ERZ-VF2M431	
470	300	385	775	0.1	10.0	300	P7356CT-ND	2.39	1.56	1.20	P7356TR-ND	916.12/M	838.78/M	ERZ-VF2M471	
CF	22	14	18	48	0.01	0.4	50	P220ZFCT-ND	2.26	1.47	1.13	P220ZFTR-ND	887.85/M	—	ERZ-CF2MK220
	27	17	22	60	0.01	0.5	50	P270ZFCT-ND	2.26	1.47	1.13	—	—	—	ERZ-CF2MK270
	39	25	31	86	0.01	0.8	50	P390ZFCT-ND	2.26	1.47	1.13	—	—	—	ERZ-CF2MK390
	47	30	38	104	0.01	1.0	50	P470ZFCT-ND	2.26	1.47	1.13	P470ZFTR-ND	887.85/M	860.11/M	ERZ-CF2MK470
	56	35	45	123	0.01	1.0	50	P560ZFCT-ND	2.26	1.47	1.13	P560ZFTR-ND	988.69/M	924.45/M	ERZ-CF2MK560
	68	40	56	150	0.01	1.2	50	P680ZFCT-ND	2.26	1.47	1.13	P680ZFTR-ND	887.85/M	860.11/M	ERZ-CF2MK680
	82	50	65	145	0.1	1.7	200	P820ZFCT-ND	2.26	1.47	1.13	P820ZFTR-ND	887.85/M	860.11/M	ERZ-CF2MK820
	100	60	85	175	0.1	2.0	200	P101ZFCT-ND	2.26	1.47	1.13	P101ZFTR-ND	988.69/M	924.45/M	ERZ-CF2MK101
	120	75	100	210	0.1	2.5	200	P121ZFCT-ND	2.26	1.47	1.13	P121ZFTR-ND	887.85/M	860.11/M	ERZ-CF2MK121
	150	95	125	200	0.1	3.0	200	P151ZFCT-ND	2.26	1.47	1.13	—	—	—	ERZ-CF2MK151
	200	130	170	355	0.1	4.0	200	P201ZFCT-ND	2.26	1.47	1.13	P201ZFTR-ND	887.85/M	860.11/M	ERZ-CF2MK201
	220	140	180	380	0.1	4.5	200	P221ZFCT-ND	2.26	1.47	1.13	P221ZFTR-ND	887.85/M	860.11/M	ERZ-CF2MK221
	240	150	200	415	0.1	5.0	200	P241ZFCT-ND	2.26	1.47	1.13	—	—	—	ERZ-CF2MK241
	270	175	225	475	0.1	6.0	200	P271ZFCT-ND	2.26	1.47	1.13	—	—	—	ERZ-CF2MK271
	360	230	300	620	0.1	6.0	200	P361ZFCT-ND	2.26	1.47	1.13	P361ZFTR-ND	988.69/M	924.45/M	ERZ-CF2MK361
	390	260	320	675	0.1	6.0	200	P391ZFCT-ND	2.26	1.47	1.13	P391ZFTR-ND	887.85/M	860.11/M	ERZ-CF2MK391
430	275	350	745	0.1	6.3	200	P431ZFCT-ND	2.26	1.47	1.13	—	—	—	ERZ-CF2MK431	
470	300	385	810	0.1	7.0	200	P471ZFCT-ND	2.26	1.47	1.13	P471ZFTR-ND	988.69/M	924.45/M	ERZ-CF2MK471	
SF	22	14	18	43	0.02	0.9	125	P220ZSCT-ND	2.50	1.63	1.25	—	—	—	ERZ-SF2MK220
	27	17	22	53	0.02	1.0	125	P270ZSCT-ND	2.50	1.63	1.25	—	—	—	ERZ-SF2MK270
	33	20	26	65	0.02	1.2	125	P330ZSCT-ND	2.50	1.63	1.25	P330ZSTR-ND	983.79/M	953.05/M	ERZ-SF2MK330
	39	25	31	77	0.02	1.5	125	P390ZSCT-ND	2.50	1.63	1.25	P390ZSTR-ND	983.79/M	953.05/M	ERZ-SF2MK390
	47	30	38	93	0.02	1.8	125	P470ZSCT-ND	2.50	1.63	1.25	P470ZSTR-ND	983.79/M	953.05/M	ERZ-SF2MK470
	56	35	45	110	0.02	2.2	125	P560ZSCT-ND	2.50	1.63	1.25	P560ZSTR-ND	983.79/M	953.05/M	ERZ-SF2MK560
	68	40	56	135	0.02	2.5	125	P680ZSCT-ND	2.50	1.63	1.25	P680ZSTR-ND	983.79/M	953.05/M	ERZ-SF2MK680
	82	50	65	135	0.25	3.5	600	P820ZSCT-ND	2.50	1.63	1.25	P820ZSTR-ND	983.79/M	953.05/M	ERZ-SF2MK820
	120	75	100	200	0.25	5.0	600	P121ZSCT-ND	2.50	1.63	1.25				