



**GENERAL TYPE PRODUCTS SERIES**

Part No.	Varistor Voltage	Maximum Operating Voltage		Maximum Clamping Voltage (8 / 20us)		Maximum Withstanding surge Current(8×20us)		Maximum Energy (J)		Rated Wattage	Capacitance (Reference)1 kHz
	V(v) DC	AC (V)	DC (V)	VC (V)	IP (A)	2Time (A)	1Time (A)	2ms	10/1000 (us)	(W)	(PF)
FNR-05K180	18	11	14	40	1	50	100	0.3	0.4	0.01	1600
FNR-07K180	18	11	14	36	2.5	125	250	0.8	0.9	0.02	3500
FNR-10K180	18	11	14	36	5	250	500	1.5	2.1	0.05	7500
FNR-14K180	18	11	14	36	10	500	1000	3.5	4.0	0.1	18000
FNR-20K180	18	11	14	36	20	1000	2000	10.0	11.0	0.2	37000
FNR-05K220	22	14	18	48	1	50	100	0.4	0.5	0.01	1300
FNR-07K220	22	14	18	43	2.5	125	250	0.9	1.1	0.02	2800
FNR-10K220	22	14	18	43	5	250	500	2.0	2.5	0.05	6000
FNR-14K220	22	14	18	43	10	500	1000	4.0	5.0	0.1	15000
FNR-20K220	22	14	18	43	20	1000	2000	13.0	14.0	0.2	30000
FNR-05K270	27	17	22	60	1	50	100	0.5	0.6	0.01	1050
FNR-07K270	27	17	22	53	2.5	125	250	1.0	1.4	0.02	2000
FNR-10K270	27	17	22	53	5	250	500	2.5	3.0	0.05	4000
FNR-14K270	27	17	22	53	10	500	1000	5.0	6.0	0.1	10000
FNR-20K270	27	17	22	53	20	1000	2000	15.0	18.0	0.2	20000
FNR-05K330	33	20	26	73	1	50	100	0.6	0.8	0.01	900
FNR-07K330	33	20	26	65	2.5	125	250	1.2	1.7	0.02	1500
FNR-10K330	33	20	26	65	5	250	500	3.0	4.0	0.05	3000
FNR-14K330	33	20	26	65	10	500	1000	6.0	7.5	0.1	7500
FNR-20K330	33	20	26	65	20	1000	2000	20.0	13.0	0.2	17000
FNR-05K390	39	25	31	86	1	50	100	0.8	0.9	0.01	500
FNR-07K390	39	25	31	77	2.5	125	250	1.5	2.1	0.02	1350
FNR-10K390	39	25	31	77	5	250	500	3.5	4.6	0.05	2600
FNR-14K390	39	25	31	77	10	500	1000	7.0	8.6	0.1	6500
FNR-20K390	39	25	31	77	20	1000	2000	24.0	26.0	0.2	15000
FNR-05K470	47	30	38	104	1	50	100	1.0	1.1	0.01	450
FNR-07K470	47	30	38	93	2.5	125	250	1.8	2.5	0.02	1150
FNR-10K470	47	30	38	93	5	250	500	4.5	5.5	0.05	2200
FNR-14K470	47	30	38	93	10	500	1000	8.5	10.0	0.1	5500
FNR-20K470	47	30	38	93	20	1000	2000	30.0	33.0	0.2	13000
FNR-05K560	56	35	45	123	1	50	100	1.0	1.3	0.01	400
FNR-07K560	56	35	45	110	2.5	125	250	2.2	3.1	0.02	950
FNR-10K560	56	35	45	110	5	250	500	5.5	7.0	0.05	1800
FNR-14K560	56	35	45	110	10	500	1000	10.0	11.0	0.1	4500
FNR-20K560	56	35	45	110	20	1000	2000	35.0	41.0	0.2	110000



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Part No.	Varistor Voltage	Maxmum Operating Voltage		Maxmum Clamping Voltage ( 8 / 20us )		Maxmum Withtanding surge Current( 8×20us)		Maxmum Energy (J)		Reted Wattage	Capacitance (Reference) 1kHz
	V(v) DC	AC (V)	DC (V)	VC (V)	IP (A)	2Time (A)	1Time (A)	2ms	10/1000 (us)	(W)	(PF)
FNR-05K121	120	75	100	210	5	200	400	2.5	4.0	0.1	170
FNR-07K121	120	75	100	200	10	600	1200	5.0	7.8	0.25	450
FNR-10K121	120	75	100	200	25	1250	2500	12.0	18.0	0.4	1100
FNR-14K121	120	75	100	200	50	2500	4500	20.0	32.0	0.6	1900
FNR-20K121	120	75	100	200	100	4000	6500	40.0	55.0	1.0	3800
FNR-05K151	150	95	125	260	5	200	400	3.0	4.8	0.1	14
FNR-07K151	150	95	125	250	10	600	1200	6.0	9.7	0.25	035
FNR-10K151	150	95	125	250	25	1250	2500	16.0	22.0	0.4	0900
FNR-14K151	150	95	125	250	50	2500	4500	25.0	40.0	0.6	1500
FNR-20K151	150	95	125	250	100	4000	6500	50.0	70.0	1.0	3000
FNR-05K181	180	115	150	315	5	200	400	3.5	5.5	0.1	110
FNR-07K181	180	115	150	300	10	600	1200	8.0	1.0	0.25	300
FNR-10K181	180	115	150	300	25	1250	2500	18.0	25.0	0.4	700
FNR-14K181	180	115	150	300	50	2500	4500	30.0	50.0	0.6	1250
FNR-20K181	180	115	150	300	100	4000	6500	60.0	85.0	1.0	2500
FNR-05K201	200	130	170	355	5	200	400	4.0	6.5	0.1	80
FNR-07K201	200	130	170	340	10	600	1200	10.0	13.0	0.25	250
FNR-10K201	200	130	170	340	25	1250	2500	20.0	30.0	0.4	500
FNR-14K201	200	130	170	340	50	2500	4500	35.0	57.0	0.6	1000
FNR-20K201	200	130	170	340	100	4000	6500	70.0	95.0	1.0	200
FNR-05K221	220	140	180	380	5	200	400	4.5	7.0	0.1	70
FNR-07K221	220	140	180	360	10	600	1200	10.0	14.0	0.25	250
FNR-10K221	220	140	180	360	25	1250	2500	23.0	32.0	0.4	450
FNR-14K221	220	140	180	360	50	2500	4500	40.0	60.0	0.6	1000
FNR-20K221	220	140	180	360	100	4000	6500	75.0	100.0	1.0	200
FNR-05K241	240	150	200	415	5	200	400	5.0	8.0	0.1	70
FNR-07K241	240	150	200	395	10	600	1200	10.0	15.0	0.25	2000
FNR-10K241	240	150	200	395	25	1250	2500	25.0	35.0	0.4	400
FNR-14K241	240	150	200	395	50	2500	4500	40.0	63.0	0.6	900
FNR-20K241	240	150	200	395	100	4000	6500	80.0	108.0	1.0	1800
FNR-05K271	270	175	225	475	5	200	400	6.0	8.5	0.1	65
FNR-07K271	270	175	225	455	10	600	1200	12.0	18.0	0.25	170
FNR-10K271	270	175	225	455	25	1250	2500	30.0	40.0	0.4	350
FNR-14K271	270	175	225	455	50	2500	4500	50.0	70.0	0.6	750
FNR-20K271	270	175	225	455	100	4000	6500	90.0	127.0	1.0	1600



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Part No.	Varistor Voltage	Maxmum Operating Voltage		Maxmum Clamping Voltage ( 8 / 20us )		Maxmum Withtanding surge Current( 8×20us)		Maxmum Energy (J)		Reted Wattage	Capacitance (Reference)1 kHz
	V(v) DC	AC (V)	DC (V)	VC (V)	IP (A)	2Time (A)	1Time (A)	2ms	10/1000 (us)	(W)	(PF)
FNR-05K391	390	250	320	675	5	200	400	8.0	12.0	0.1	50
FNR-07K391	390	250	320	650	10	600	1200	17.0	25.0	0.25	130
FNR-10K391	390	250	320	650	25	1250	2500	40.0	60.0	0.4	270
FNR-14K391	390	250	320	650	50	2500	4500	70.0	100.0	0.6	500
FNR-20K391	390	250	320	650	100	4000	6500	130.0	180.0	1.0	1000
FNR-05K431	430	275	350	745	5	200	400	9.0	13.0	0.1	45
FNR-07K431	430	275	350	710	10	600	1200	20.0	28.0	0.25	110
FNR-10K431	430	275	350	710	25	1250	2500	45.0	65.0	0.4	250
FNR-14K431	430	275	350	710	50	2500	4500	75.0	115.0	0.6	450
FNR-20K431	430	275	350	710	100	4000	6500	140.0	190.0	1.0	900
FNR-05K471	470	300	385	810	5	200	400	10.0	15.0	0.1	40
FNR-07K471	470	300	385	775	10	600	1200	20.0	30.0	0.25	100
FNR-10K471	470	300	385	775	25	1250	2500	45.0	70.0	0.4	230
FNR-14K471	470	300	385	775	50	2500	4500	80.0	125.0	0.6	440
FNR-20K471	470	300	385	775	100	4000	6500	150.0	220.0	1.0	900
FNR-10K511	510	318	415	840	25	1250	2500	45.0	70.0	0.4	200
FNR-14K511	510	318	415	840	50	2500	4500	80.0	125.0	0.6	380
FNR-20K511	510	318	415	840	100	4000	6500	150.0	220.0	1.0	800
FNR-10K561	560	350	455	925	25	1250	2500	45.0	70.0	0.4	180
FNR-14K561	560	350	455	925	50	2500	4500	80.0	125.0	0.6	345
FNR-20K561	560	350	455	925	100	4000	6500	150.0	220.0	1.0	700
FNR-10K621	620	380	505	1025	25	1250	2500	45.0	70.0	0.4	130
FNR-14K621	620	380	505	1025	50	2500	4500	85.0	125.0	0.6	250
FNR-20K621	620	380	505	1025	100	4000	6500	150.0	220.0	1.0	500
FNR-10K681	680	420	560	1120	25	1250	2500	45.0	70.0	0.4	130
FNR-14K681	680	420	560	1120	50	2500	4500	90.0	130.0	0.6	250
FNR-20K681	680	420	560	1120	100	4000	6500	160.0	230.0	1.0	460
FNR-10K751	750	460	615	1240	25	1250	2500	50.0	75.0	0.4	120
FNR-14K751	750	460	615	1240	50	2500	4500	100.0	143.0	0.6	230
FNR-20K751	750	460	615	1240	100	4000	6500	175.0	255.0	1.0	420
FNR-10K781	780	485	640	1290	25	1250	2500	50.0	80.0	0.4	120
FNR-14K781	780	485	640	1290	50	2500	4500	105.0	148.0	0.6	230
FNR-20K781	780	485	640	1290	100	4000	6500	180.0	265.0	1.0	420
FNR-10K821	820	510	670	1355	25	1250	2500	55.0	85.0	0.4	1100
FNR-14K821	820	510	670	1355	50	2500	4500	110.0	157.0	0.6	200

**GENERAL TYPE PRODUCTS SERIES**

Part No.	Varistor Voltage	Maxmum Operating Voltage		Maxmum Clamping Voltage ( 8 / 20us )		Maxmum Withtanding surge Current( 8×20us)	Maxmum Energy (2ms )	Reted Wattage	Capacitance (Reference)1 kHz
	V(v) DC	AC (V)	DC (V)	VC (V)	IP (A)	(A)	(J)	(W)	(PF)
FNR-25K470	47	30	38	89	40	1250	15	1.0	10000
FNR-32K470	47	30	38	89	40	2500	25	1.2	11000
FNR-40K470	47	30	38	89	40	5000	40	1.4	15000
FNR-25K560	56	35	45	106	40	1250	18	1.0	8000
FNR-32K560	56	35	45	106	40	2500	30	1.2	10000
FNR-40K560	56	35	45	106	40	5000	45	1.4	14000
FNR-25K680	68	40	56	129	40	1250	21	1.0	7000
FNR-32K680	68	40	56	129	40	2500	32	1.2	9000
FNR-40K680	68	40	56	129	40	5000	50	1.4	13000
FNR-25K820	82	50	65	156	200	5000	23	1.0	6000
FNR-32K820	82	50	65	156	200	10000	35	1.2	8000
FNR-40K820	82	50	65	156	200	20000	60	1.4	12000
FNR-25K101	100	60	85	190	200	5000	25	1.0	5000
FNR-32K101	100	60	85	190	200	10000	38	1.2	7000
FNR-40K101	100	60	85	190	200	20000	75	1.4	11500
FNR-25K121	120	75	100	216	200	5000	28	1.0	4000
FNR-32K121	120	75	100	216	200	10000	42	1.2	6000
FNR-40K121	120	75	100	216	200	20000	90	1.4	11000
FNR-25K151	150	95	125	270	200	5000	30	1.0	3000
FNR-32K151	150	95	125	270	200	10000	50	1.2	5000
FNR-40K151	150	95	125	270	200	20000	120	1.4	10500
FNR-25K201	200	130	170	360	200	5000	35	1.0	2400
FNR-32K201	200	130	170	360	200	10000	70	1.2	4700



### GENERAL TYPE PRODUCTS SERIES

Part No.	Varistor Voitage	Maxmum Operating Voitage		Maxmum Clamping Voitage ( 8 / 20us )		Maxmum Withtanding surge Current( 8×20us)	Maxmum Energy (2ms )	Reted Wattage	Capacitance (Reference)1 kHz
	V(v) DC	AC (V)	DC (V)	VC (V)	IP (A)	(A)	(J)	(W)	(PF)
FNR-25K431	430	275	350	731	200	5000	180	1.0	1100
FNR-32K431	430	275	350	731	200	10000	260	1.2	2250
FNR-40K431	430	275	350	731	200	20000	380	1.4	4500
FNR-25K471	470	300	380	799	200	5000	220	1.0	1000
FNR-32K471	470	300	380	799	200	10000	300	1.2	1900
FNR-40K471	470	300	380	799	200	20000	420	1.4	3600
FNR-25K621	620	385	505	1054	200	5000	260	1.0	1500
FNR-32K621	620	385	505	1054	200	10000	340	1.2	3200
FNR-40K621	620	385	505	1054	200	20000	450	1.4	3300
FNR-25K681	680	420	560	1160	200	5000	300	1.0	1200
FNR-32K681	680	420	560	1160	200	10000	380	1.2	3000
FNR-40K681	680	420	560	1160	200	20000	500	1.4	3000
FNR-25K751	750	460	615	1275	200	5000	350	1.0	1100
FNR-32K751	750	460	615	1275	200	10000	430	1.2	27000
FNR-40K751	750	460	615	1275	200	20000	550	1.4	2500
FNR-25K781	780	485	640	1326	200	5000	370	1.0	1050
FNR-32K781	780	485	640	1326	200	10000	480	1.2	2600
FNR-40K781	780	485	640	1326	200	20000	600	1.4	2450
FNR-25K821	820	510	670	1400	200	5000	400	1.0	1000
FNR-32K821	820	510	670	1400	200	10000	5300	1.2	2400
FNR-40K821	820	510	670	1400	200	20000	640	1.4	2400
FNR-25K911	910	550	745	1550	200	5000	420	1.0	900
FNR-32K911	910	550	745	1550	200	10000	580	1.2	2200
FNR-40K911	910	550	745	1550	200	20000	700	1.4	2200
FNR-25K102	1000	625	825	1700	200	5000	450	1.0	800
FNR-32K102	1000	625	825	1700	200	10000	630	1.2	1900
FNR-40K102	1000	625	825	1700	200	20000	800	1.4	2000
FNR-25K112	1100	680	895	1870	200	5000	500	1.0	700
FNR-32K112	1100	680	895	1870	200	10000	700	1.2	1700
FNR-40K112	1100	680	895	1870	200	20000	850	1.4	1800
FNR-25K182	1800	1000	1465	3060	200	10000	750	1.2	1600
FNR-32K182	1800	1000	1465	3060	200	20000	1000	1.4	1600