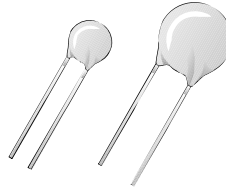


SUPPRESSORS**METAL OXIDE VARISTORS****CERAMATE type GNR**

Ceramate varistors are designed to offer direct replacement of a wide range of devices from alternative manufacturers. An extensive cross reference chart shown over the following pages allows easy selection of the appropriate Ceramate part. The full specification and main listing of available varistors is shown on pages 537-540.

**NEW****CROSS REFERENCE CHART**

Maximum Operating Voltage Vrms Vdc	Element Size (Dia.) mm	Energy (10/1000µs) J	CERAMATE	Joyin	Littelfuse GE-MOV	Epcos SIOV-S	Panasonic ERZ-	BC Comp. (Philips) 2322	Thomson VE	Thomson VF
11 14	5	0.4	GNR05D180K	JVR5N180K	V18ZA05	05K11	C05DK180	-	07M00110K	05M10180K
	7	0.9	GNR07D180K	JVR7N180K	V18ZA1	07K11	C07DK180	-	09M00110K	07M10180K
	10	2.1	GNR10D180K	JVR10N180K	V18ZA2	10K11	C10DK180	-	-	-
	14	4	GNR14D180K	JVR14N180K	V18ZA3	14K11	C14DK180	-	-	-
14 18	5	0.5	GNR05D220K	JVR5N220K	V22ZA05	05K14	C05DK220	-592-51406	07M00140K	05M10220K
	7	1.1	GNR07D220K	JVR7N220K	V22ZA1	07K14	C07DK220	-593-51406	09M00140K	07M10220K
	10	2.5	GNR10D220K	JVR10N220K	V22ZA2	10K14	C10DK220	-594-51406	13M00140K	10M10220K
	14	5	GNR14D220K	JVR14N220K	V22ZA3	14K14	C14DK220	-595-51406	17M00140K	14M10220K
17 22	5	0.6	GNR05D270K	JVR5N270K	V27ZA05	05K17	C05DK270	-592-51706	07M00170K	05M10270K
	7	1.4	GNR07D270K	JVR7N270K	V27ZA1	07K17	C07DK270	-593-51706	09M00170K	07M10270K
	10	3	GNR10D270K	JVR10N270K	V27ZA2	10K17	C10DK270	-594-51706	13M00170K	10M10270K
	14	6	GNR14D270K	JVR14N270K	V27ZA4	14K17	C14DK270	-595-51706	17M00170K	14M10270K
20 26	5	0.8	GNR05D330K	JVR5N330K	V33ZA05	05K20	C05DK350	-592-52006	07M00200K	05M10330K
	7	1.7	GNR07D330K	JVR7N330K	V33ZA1	07K20	C07DK330	-593-52006	09M00200K	07M10330K
	10	4	GNR10D330K	JVR10N330K	V33ZA2	10K20	C10DK330	-594-52006	13M00200K	10M10330K
	14	7.5	GNR14D330K	JVR14N330K	V33ZA5	14K20	C14DK330	-595-52006	17M00200K	14M10330K
25 31	5	0.9	GNR05D390K	JVR5N390K	V39ZA05	05K25	C05DK390	-592-52506	07M00250K	05M10390K
	7	2.1	GNR07D390K	JVR7N390K	V39ZA1	07K25	C07DK390	-593-52506	09M00250K	07M10390K
	10	4.6	GNR10D390K	JVR10N390K	V39ZA3	10K25	C10DK390	-594-52506	13M00250K	10M10390K
	14	8.6	GNR14D390K	JVR14N390K	V39ZA6	14K25	C14DK390	-595-52506	17M00250K	14M10390K
30 38	5	1.1	GNR05D470K	JVR5N470K	V47ZA05	05K30	C05DK470	-592-53006	07M00300K	05M10470K
	7	2.5	GNR07D470K	JVR7N470K	V47ZA1	07K30	C07DK470	-593-53006	09M00300K	07M10470K
	10	5.5	GNR10D470K	JVR10N470K	V47ZA3	10K30	C10DK470	-594-53006	13M00300K	10M10470K
	14	10	GNR14D470K	JVR14N470K	V47ZA7	14K30	C14DK470	-595-53006	17M00300K	14M10470K
35 45	5	1.3	GNR05D560K	JVR5N560K	V56ZA05	05K35	C05DK560	-592-53506	07M00350K	05M10560K
	7	3.1	GNR07D560K	JVR7N560K	V56ZA2	07K35	C07DK560	-593-53506	09M00350K	07M10560K
	10	7	GNR10D560K	JVR10N560K	V56ZA3	10K35	C10DK560	-594-53506	13M00350K	10M10560K
	14	11	GNR14D560K	JVR14N560K	V56ZA8	14K35	C14DK560	-595-53506	17M00350K	14M10560K
40 56	5	1.6	GNR05D680K	JVR5N680K	V68ZA05	05K40	C05DK680	-592-54006	07M00400K	05M10680K
	7	3.6	GNR07D680K	JVR7N680K	V68ZA2	07K40	C07DK680	-593-54006	09M00400K	07M10680K
	10	8.2	GNR10D680K	JVR10N680K	V68ZA3	10K40	C10DK680	-594-54006	13M00400K	10M10680K
	14	14	GNR14D680K	JVR14N680K	V68ZA10	14K40	C14DK680	-595-54006	17M00400K	14M10680K
50 65	5	2.5	GNR05D820K	JVR5N820K	V82ZA05	05K50	C05DK820	-592-55006	07M00500K	05M10820K
	7	5.5	GNR07D820K	JVR7N820K	V82ZA2	07K50	C07DK820	-593-55006	09M00500K	07M10820K
	10	12	GNR10D820K	JVR10N820K	V82ZA4	10K50	C10DK820	-594-55006	13M00500K	10M10820K
	14	22	GNR14D820K	JVR14N820K	V82ZA12	14K50	C14DK820	-595-55006	17M00500K	14M10820K
	20	38	GNR20D820KA	JVR20N820KPB7	-	-	-	-	-	-
	20	38	GNR20D820K	JVR20N820K	-	20K50	C20DK820	-	-	-
60 85	5	3	GNR05D101K	JVR5N101K	V100ZA05	05K60	C05DK101	-592-56006	07M00600K	05M10101K
	7	6.5	GNR07D101K	JVR7N101K	V100ZA3	07K60	C07DK101	-593-56006	09M00600K	07M10101K
	10	15	GNR10D101K	JVR10N101K	V100ZA4	10K60	C10DK101	-594-56006	13M00600K	10M10101K
	14	28	GNR14D101K	JVR14N101K	V100ZA15	14K60	C14DK101	-595-56006	17M00600K	14M10101K
	20	45	GNR20D101KA	JVR20N101KPB7	-	-	-	-	-	-
	20	45	GNR20D101K	JVR20N101K	-	20K60	C20DK101	-	-	-

continued on next page



METAL OXIDE VARISTORS

SUPPRESSORS

CERAMATE type GNR

CROSS REFERENCE CHART (cont.)



Maximum Operating Voltage Vrms Vdc	Element Size (Dia.) mm	Energy (10/1000µs) J	CERAMATE	Joyin	Littelfuse GE-MOV	Epcos SIOV-S	Panasonic ERZ-	BC Comp. (Philips) 2322	Thomson VE	Thomson VF
75 100	5	4	GNR05D121K	JVR5N121K	V120ZA05	05K75	C05DK121	-592-57506	07M00750K	05M10121K
	7	7.8	GNR07D121K	JVR7N121K	V120ZA1	07K75	C07DK121	-593-57506	09M00750K	07M10121K
	10	18	GNR10D121K	JVR10N121K	V120ZA4	10K75	C10DK121	-594-57506	13M00750K	10M10121K
	14	32	GNR14D121K	JVR14N121K	V120ZA6	14K75	C14DK121	-595-57506	17M00750K	14M10121K
	20	55	GNR20D121KA	JVR20N121KPB7	V120ZA20	-	-	-	24M00750K	20M10121K
	20	55	GNR20D121K	JVR20N121K	-	20K75	C20DK121	-	-	-
95 125	5	4.8	GNR05D151K	JVR5N151K	V150ZA05	05K95	C05DK151	-592-59506	07M00950K	05M10151K
	7	9.7	GNR07D151K	JVR7N151K	V150ZA1	07K95	C07DK151	-593-59506	09M00950K	07M10151K
	10	22	GNR10D151K	JVR10N151K	V150ZA4	10K95	C10DK151	-594-59506	13M00950K	10M10151K
	14	40	GNR14D151K	JVR14N151K	V150ZA8	14K95	C14DK151	-595-59506	17M00950K	14M10151K
	20	70	GNR20D151KA	JVR20N151KPB7	V150ZA20	-	-	-	24M00950K	20M10151K
	20	70	GNR20D151K	JVR20N151K	-	20K95	C20DK151	-	-	-
115 150	5	6	GNR05D181K	JVR5N181K	V180ZA05	05K115	-	-	07M01150K	05M10181K
	7	11	GNR07D181K	JVR7N181K	V180ZA1	07K115	-	-	09M01150K	07M10181K
	10	27	GNR10D181K	JVR10N181K	V180ZA5	10K115	-	-	13M01150K	10M10181K
	14	50	GNR14D181K	JVR14N181K	V180ZA10	14K115	-	-	17M01150K	14M10181K
	20	85	GNR20D181KA	JVR20N181KPB7	V180ZA20	-	-	-	24M01150K	20M10181K
	20	85	GNR20D181K	JVR20N181K	-	20K115	C20DK181	-	-	-
130 170	5	6.5	GNR05D201K	JVR5N201K	V205ZA05	05K130	C05DK201	-592-51316	07M00131K	05M12050K
	7	13	GNR07D201K	JVR7N201K	V130LA2	07K130	C07DK201	-593-51316	09M00131K	07M12050K
	10	30	GNR10D201K	JVR10N201K	V130LA5	10K130	C10DK201	-594-51316	13M00131K	10M12050K
	14	57	GNR14D201K	JVR14N201K	V130LA10A	14K130	C14DK201	-595-51316	17M00131K	14M12050K
	20	95	GNR20D201KA	JVR20N201KPB7	V130LA20A	20S130BR7	-	-	24M00131K	20M12050K
	20	95	GNR20D201K	JVR20N201K	-	20K130	C20DK201	-	-	-
140 180	5	7	GNR05D221K	JVR5N221K	V220ZA05	05K140	C05DK221	-592-51416	07M00141K	05M10221K
	7	14	GNR07D221K	JVR7N221K	V140LA2	07K140	C07DK221	-593-51416	09M00141K	07M10221K
	10	32	GNR10D221K	JVR10N221K	V140LA5	10K140	C10DK221	-594-51416	13M00141K	10M10221K
	14	60	GNR14D221K	JVR14N221K	V140LA10A	14K140	C14DK221	-595-51416	17M00141K	14M10221K
	20	100	GNR20D221KA	JVR20N221KPB7	V140LA20A	-	-	-	24M00141K	20M10221K
	20	100	GNR20D221K	JVR20N221K	-	20K140	C20DK221	-	-	-
150 200	5	8	GNR05D241K	JVR5N241K	V240ZA05	05K150	C05DK241	-592-51516	07M00151K	05M10241K
	7	15	GNR07D241K	JVR7N241K	V150LA2	07K150	C07DK241	-593-51516	09M00151K	07M10241K
	10	35	GNR10D241K	JVR10N241K	V150LA5	10K150	C10DK241	-594-51516	13M00151K	10M10241K
	14	63	GNR14D241K	JVR14N241K	V150LA10A	14K150	C14DK241	-595-51516	17M00151K	14M10241K
	20	108	GNR20D241KA	JVR20N241KPB7	V150LA20A	20S150BR7	-	-	24M00151K	20M10241K
	20	108	GNR20D241K	JVR20N241K	-	20K150	C20DK241	-	-	-
175 225	5	8.5	GNR05D271K	JVR5N271K	V270ZA05	05K175	-	-	07M01750K	05M10271K
	7	18	GNR07D271K	JVR7N271K	V175LA2	07K175	C07DK271	-593-51716	09M01750K	07M10271K
	10	40	GNR10D271K	JVR10N271K	V175LA5	10K175	C10DK271	-594-51716	13M01750K	10M10271K
	14	70	GNR14D271K	JVR14N271K	V175LA10A	14K175	C14DK271	-595-51716	17M01750K	14M10271K
	20	127	GNR20D271KA	JVR20N271KPB7	V175LA20A	-	-	-	24M01750K	20M10271K
	20	127	GNR20D271K	JVR20N271K	-	20K175	C20DK271	-	-	-
190 250	5	9	GNR05D301K	JVR5N301K	-	-	-	-	-	-
	7	21	GNR07D301K	JVR7N301K	-	-	-	-	-	-
	10	45	GNR10D301K	JVR10N301K	-	-	-	-	-	-
	14	80	GNR14D301K	JVR14N301K	-	-	-	-	-	-
	20	135	GNR20D301KA	JVR20N301KPB7	-	-	-	-	-	-
	20	135	GNR20D301K	JVR20N301K	-	-	-	-	-	-
210 275	5	9.5	GNR05D331K	JVR5N331K	-	-	-	-	07M00211K	05M10331K
	7	23	GNR07D331K	JVR7N331K	-	-	C07DK331	-	09M00211K	07M10331K
	10	43	GNR10D331K	JVR10N331K	-	-	-	-	13M00211K	10M10331K
	14	87	GNR14D331K	JVR14N331K	-	-	-	-	17M00211K	14M10331K
	20	150	GNR20D331KA	JVR20N331KPB7	-	-	-	-	24M00211K	20M10331K
	20	150	GNR20D331K	JVR20N331K	-	-	-	-	-	-

Cross Reference Chart continued overleaf > > >

SUPPRESSORS**METAL OXIDE VARISTORS****CERAMATE type GNR****CROSS REFERENCE CHART (cont.)**

Maximum Operating Voltage Vrms Vdc	Element Size (Dia.) mm	Energy (10/1000µs) J	CERAMATE	Joyin	Littelfuse GE-MOV	Epcos SIOV-S	Panasonic ERZ-	BC Comp. (Philips) 2322	Thomson VE	Thomson VF
230 300	5	10	GNR05D361K	JVR5N361K	V360ZA05	05K230	C05DK361	-592-52316	07M00231K	05M10361K
	7	25	GNR07D361K	JVR7N361K	V230LA4	07K230	C07DK361	-593-52316	09M00231K	07M10361K
	10	47	GNR10D361K	JVR10N361K	V230LA10	10K230	C10DK361	-594-52316	13M00231K	10M10361K
	14	93	GNR14D361K	JVR14N361K	V230LA20A	14K230	C14DK361	-595-52316	17M00231K	14M10361K
	20	163	GNR20D361KA	JVR20N361KPB7	V230LA40	-	-	-	24M00231K	20M10361K
	20	163	GNR20D361K	JVR20N361K	-	20K230	C20DK361	-	-	-
250 320	5	12	GNR05D391K	JVR5N391K	V390ZA05	05K250	C05DK391	-592-52516	07M00251K	05M10391K
	7	25	GNR07D391K	JVR7N391K	V250LA4	07K250	C07DK391	-593-52516	09M00251K	07M10391K
	10	60	GNR10D391K	JVR10N391K	V250LA10	10K250	C10DK391	-594-52516	13M00251K	10M10391K
	14	100	GNR14D391K	JVR14N391K	V250LA20A	14K250	C14DK391	-595-52516	17M00251K	14M10391K
	20	180	GNR20D391KA	JVR20N391KPB7	V250LA40A	20S250BR7	-	-	24M00251K	20M10391K
	20	180	GNR20D391K	JVR20N391K	-	20K250	C20DK391	-	-	-
275 350	5	13	GNR05D431K	JVR5N431K	V430ZA05	05K275	C05DK431	-592-52716	07M02750K	05M10431K
	7	28	GNR07D431K	JVR7N431K	V275LA4	07K275	C07DK431	-593-52716	09M02750K	07M10431K
	10	65	GNR10D431K	JVR10N431K	V275LA10	10K275	C10DK431	-594-52716	13M02750K	10M10431K
	14	115	GNR14D431K	JVR14N431K	V275LA20A	14K275	C14DK431	-595-52716	17M02750K	14M10431K
	20	190	GNR20D431KA	JVR20N431KPB7	V275LA40A	20S275BR7	-	-	24M02750K	20M10431K
	20	190	GNR20D431K	JVR20N431K	-	20K275	C20DK431	-	-	-
300 385	5	15	GNR05D471K	JVR5N471K	V470ZA05	05K300	C05DK471	-592-53016	07M00301K	05M10471K
	7	30	GNR07D471K	JVR7N471K	V300LA4	07K300	C07DK471	-593-53016	09M00301K	07M10471K
	10	70	GNR10D471K	JVR10N471K	V300LA10	10K300	C10DK471	-594-53016	13M00301K	10M10471K
	14	125	GNR14D471K	JVR14N471K	V300LA20A	14K300	C14DK471	-595-53016	17M00301K	14M10471K
	20	220	GNR20D471KA	JVR20N471KPB7	V300LA40A	-	-	-	24M00301K	20M10471K
	20	220	GNR20D471K	JVR20N471K	-	20K300	C20DK471	-	-	-
320 418	10	67	GNR10D511K	JVR10N511K	V320LA10	10K320	-	-594-53216	13M00321K	10M10511K
	14	122	GNR14D511K	JVR14N511K	V320LA20A	14K320	C14DK511	-595-53216	17M00321K	14M10511K
	20	210	GNR20D511KA	JVR20N511KPB7	V320LA40A	-	-	-	24M00321K	20M10511K
	20	210	GNR20D511K	JVR20N511K	-	20K320	C20DK511	-	-	-
350 460	10	68	GNR10D561K	JVR10N561K	-	-	-	-	13M00351K	10M10561K
	14	123	GNR14D561K	JVR14N561K	-	-	-	-	17M00351K	14M10561K
	20	214	GNR20D561KA	JVR20N561KPB7	-	-	-	-	24M00351K	20M10561K
	20	214	GNR20D561K	JVR20N561K	-	-	-	-	-	-
385 505	10	70	GNR10D621K	JVR10N621K	V385LA10	10K385	C10DK621	-594-53816	13M03850K	10M10621K
	14	125	GNR14D621K	JVR14N621K	V385LA20A	14K385	C14DK621	-595-53816	17M03850K	14M10621K
	20	220	GNR20D621KA	JVR20N621KPB7	V385LA40A	-	-	-	24M03850K	20M10621K
	20	220	GNR20D621K	JVR20N621K	-	20K385	C20DK621	-	-	-
420 560	10	72	GNR10D681K	JVR10N681K	V420LA10	10K420	C10DK681	-594-54216	13M00421K	10M10681K
	14	130	GNR14D681K	JVR14N681K	V420LA20A	14K420	C14DK681	-595-54216	17M00421K	14M10681K
	20	230	GNR20D681KA	JVR20N681KPB7	V420LA40A	-	-	-	24M00421K	20M10681K
	20	230	GNR20D681K	JVR20N681K	-	20K420	C20DK681	-	-	-
460 615	10	75	GNR10D751K	JVR10N751K	-	10K460	C10DK751	-594-54616	13M00461K	10M10751K
	14	143	GNR14D751K	JVR14N751K	-	14K460	C14DK751	-595-54616	17M00461K	14M10751K
	20	255	GNR20D751KA	JVR20N751KPB7	-	-	-	-	24M00461K	20M10751K
	20	255	GNR20D751K	JVR20N751K	-	20K460	C20DK751	-	-	-
485 640	10	80	GNR10D781K	JVR10N781K	V480LA10	-	C10DK781	-	-	-
	14	148	GNR14D781K	JVR14N781K	V480LA40A	-	C14DK781	-	-	-
	20	265	GNR20D781KA	JVR20N781KPB7	V480LA80A	-	-	-	-	-
	20	265	GNR20D781K	JVR20N781K	-	-	C20DK781	-	-	-
510 670	10	85	GNR10D821K	JVR10N821K	V510LA10	10K510	C10DK821	-594-55116	13M00511K	10M10821K
	14	157	GNR14D821K	JVR14N821K	V510LA40A	14K510	C14DK821	-595-55116	17M00511K	14M10821K
	20	282	GNR20D821KA	JVR20N821KPB7	V510LA80A	-	-	-	24M00511K	20M10821K
	20	282	GNR20D821K	JVR20N821K	-	20K510	C20DK821	-	-	-
550 745	10	93	GNR10D911K	JVR10N911K	V575LA10	10K550	C10DK911	-594-55516	13M05750K	10M10911K
	14	175	GNR14D911K	JVR14N911K	V575LA40A	14K550	C14DK911	-595-55516	17M05750K	14M10911K
	20	310	GNR20D911KA	JVR20N911KPB7	V575LA80A	-	-	-	24M05750K	20M10911K
	20	310	GNR20D911K	JVR20N911K	-	20K550	C20DK911	-	-	-
680 895	10	115	GNR10D112K	JVR10N112K	V660LA10	10K680	C10DK112	-	-	-
	14	213	GNR14D112K	JVR14N112K	V660LA50A	14K680	C14DK112	-	-	-
	20	383	GNR20D112KA	JVR20N112KPB7	V660LA100A	-	-	-	-	-
	20	383	GNR20D112K	JVR20N112K	-	20K680	C20DK112	-	-	-