



SPECIFICATIONS

PRODUCT : **VARISTOR**

TYPE : **GNR25D□□□K**

MODEL :

CITATION :

REVISION : **B01**

TOTAL PAGES : **5** PAGE : **1/5**

RELEASED DATE : **Feb. 06, 2002**

REVISION HISTORY

NO	REV. DATE	DCR NO.	DESCRIPTION OF CHANGE	REV.
1	Feb. 06,2002		NEW RELEASE	B01
2				
3				
4				
5				
6				
7				
8				
9				
10				
11				
12				

Approved by	Checked by	Edited by
Yu-Chang Huang	Cloud Chen	Andy Chiang

CERAMATE	TYPE	GNR25D□□□K	MODEL		PAGE	2/5
CITATION				DATE	Feb. 06, 2002	
SUBJECT	QUALITY APPROVAL and STRUCTURE			REV.	B01	

1. QUALITY SYSTEM APPROVAL

ISO9001 Certificate of approval No.97-HOU-AQ-1382

2. SAFETY STANDARDS APPROVAL

Standard No.	UL 1449	CUL
File No.	E166389	E166389

3. STRUCTURE

NO.	ITEM	DESCRIPTION		
3.1	Main Material	Zinc Oxide		
3.2	Coating Material	Epoxy Resin		
3.3	Marking	GNR, Part number, UL and CUL recognized component mark		
3.4	Appearance	Without dirt and crack, marking should be clear		
3.5	Dimensions		D(max.)	27.5
			H(max.)	31.0
			T(max.)	* (1)
			F	12.7± 1.0
			φ d	1.0± 0.1
			L(min.)	10.0
			k(max.)	3.0
			Unit: mm	

*** (1) See Page 3, Dimensions Table**

CITATION

DATE

Feb. 06, 2002

SUBJECT


DIMENSIONS TABLE

REV.

B01

Part No.	T_{max.}
25D201K	5.5
25D241K	5.7
25D271K	6.0
25D361K	6.2
25D391K	6.3
25D431K	6.5
25D471K	6.8
25D511K	7.0
25D621K	7.6
25D681K	8.3
25D751K	8.5
25D781K	8.7
25D821K	9.1
25D911K	9.6
25D102K	10.5
25D112K	10.8
25D122K	11.5

Unit:mm

	TYPE	GNR25D□□□K	MODEL		PAGE	4/5
CITATION				DATE	Feb. 06, 2002	
SUBJECT	ELECTRICAL CHARACTERISTICS			REV.	B01	

4. ELECTRICAL CHARACTERISTICS

NO.	ITEM	PERFORMANCE	TEST METHODS
4.0	Standard Conditions		Unless otherwise specified, all tests are made under environmental conditions as given below: Temperature: 5~35°C Relative humidity: 45~85 % RH
4.1	Maximum Allowable Voltage	AC : *(2) V _{rms} DC : *(2) V	Maximum continuous sine wave(RMS) or DC voltage which may be applied.
4.2	Varistor Voltage	V _{1mA} : *(2) V	Voltage across the varistor measured at C _{mA} DC.
4.3	Varistor Voltage Temperature Coefficient	0 ~ -0.05 %/°C	$\frac{V_{CmA \text{ at } 85^{\circ}\text{C}} - V_{CmA \text{ at } 25^{\circ}\text{C}}}{V_{CmA \text{ at } 25^{\circ}\text{C}}} \times \frac{1}{60} \times 100$
4.4	Max. Clamping Voltage	*(2) V at *(2) A	Peak voltage across the varistor with a specified peak impulse current of 8x 20 μs waveform.
4.5	Rated Power	*(2) W	Maximum 50~60Hz power which may be loaded for 1,000 hrs at 85± 2°C with $\Delta V_{CmA} / V_{CmA} \leq \pm 10\%$.
4.6	Withstanding Surge Current	*(2) A	The max. current within the varistor voltage change of less than ± 10% when one impulse current (8x 20 μs) applied.
			The max. current with a varistor voltage change of less than ± 10% when two times impulse current (8x 20 μs) are applied at intervals of 5 minutes.
4.7	Energy	*(2) Joule	The max. energy absorbed with a varistor voltage change of less than ± 10% when one impulse(10 x 1000 μs) is applied.
4.8	Surge Life	*(2) A	The max. current with a varistor voltage change of less than ± 10% when 10,000 times impulse current (8x 20 μs) are applied at intervals of 20 seconds at room temperature.

* (2) See Page 5

CITATION

DATE

Feb. 06, 2002

SUBJECT

ELECTRICAL CHARACTERISTICS

REV.

B01

PART NUMBER	MAXIMUM ALLOWABLE VOLTAGE		VARISTOR VOLTAGE (V)	CLAMPING VOLTAGE (MAX.)		RATED WATTAGE (MAX.) (W)	SURGE CURRENT (8/20 μ s)		MAXIMUM ENERGY (10/1000 μ s) W_{tm} (joule)	SURGE LIFE (A)
	AC _{rms} (V)	DC(V)		(V)	Ip(A)		I _m (A)			
			1 TIME			2 TIMES				
25D201K	130	170	185~225	340	150	1.0	20000	14000	190	250
25D241K	150	200	216~264	395					220	
25D271K	175	225	243~297	455					255	
25D361K	230	300	324~396	595					330	
25D391K	250	320	351~429	650					360	
25D431K	275	350	387~473	710					380	
25D471K	300	385	423~517	775					440	
25D511K	320	415	459~561	845					440	
25D621K	385	505	558~682	1025					440	
25D681K	420	560	612~748	1120					460	
25D751K	460	615	675~825	1240					510	
25D781K	485	640	702~858	1290					530	
25D821K	510	670	738~902	1355					570	
25D911K	550	745	819~1001	1500					620	
25D102K	625	825	900~1100	1650					685	
25D112K	680	895	990~1210	1815					770	
25D122K	750	980	1080~1320	2000	800					