



## SPECIFICATIONS

PRODUCT : **VARISTOR**

TYPE : **GNR32D□□□K**

MODEL : **N**

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				

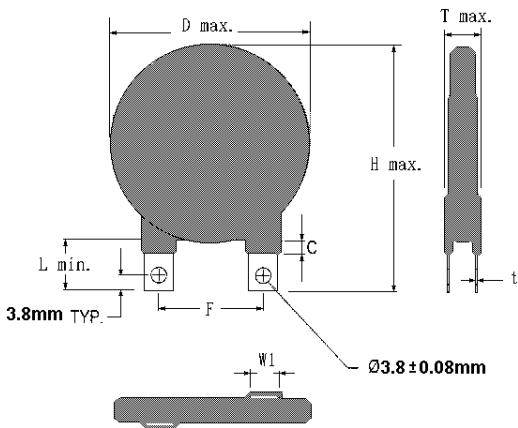
Approved by	Checked by	Edited by
Yu-Chang Huang	Cloud Chen	Andy Chiang

	TYPE	錯誤! 連結無效。	MODEL	錯誤! 連結無效。	PAGE	2/5
CITATION	錯誤! 連結無效。			DATE	錯誤! 連結無效。	
SUBJECT	<b>QUALITY APPROVAL and STRUCTURE</b>			REV.	錯誤! 連結無效。	

## 1. QUALITY SYSTEM APPROVAL

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


## 2. STRUCTURE

NO.	ITEM	DESCRIPTION		
2.1	Main Material	Zinc Oxide		
2.2	Coating Material	Epoxy Resin		
2.3	Marking	GNR, Part number		
2.4	Appearance	Without dirt and crack, marking should be clear		
2.5	Dimensions	 <p style="text-align: right;">Unit: mm</p>		
			D(max.)	38.0
			H(max.)	56.3
			T(max.)	<b>* (1)</b>
			F	25.4± 0.5
			T	0.5± 0.1
			L(min.)	16.5
			C(max.)	3.18
			W1(max.)	7.0

\* (1) See Page 3, Dimensions Table

Part No.	T <sub>max.</sub>
32D201K	6.2
32D241K	6.4
32D271K	6.6
32D331K	6.9
32D361K	7.1
32D391K	7.3
32D431K	7.5
32D471K	7.8
32D511K	8.0
32D621K	8.7
32D681K	9.0
32D751K	9.4
32D781K	9.6
32D821K	9.8
32D911K	10.4
32D951K	10.8
32D102K	11.2
32D112K	11.8

Unit:mm

	TYPE	錯誤! 連結無效。	MODEL	錯誤! 連結無效。	PAGE	4/5
CITATION	錯誤! 連結無效。			DATE	錯誤! 連結無效。	
SUBJECT	<b>ELECTRICAL CHARACTERISTICS</b>			REV.	錯誤! 連結無效。	

### 3. ELECTRICAL CHARACTERISTICS

NO.	ITEM	PERFORMANCE	TEST METHODS
3.0	Standard Conditions		Unless otherwise specified, all tests are made under environmental conditions as given below: Temperature: 5~35°C Relative humidity: 45~85 % RH
3.1	Maximum Allowable Voltage	AC : <b>* (2)</b> V <sub>rms</sub> DC : <b>* (2)</b> V	Maximum continuous sine wave(RMS) or DC voltage which may be applied.
3.2	Varistor Voltage	V <sub>1mA</sub> : <b>* (2)</b> V	Voltage across the varistor measured at C <sub>mA</sub> DC.
3.3	Varistor Voltage Temperature Coefficient	0 ~ -0.05 %/°C	$\frac{V_{CmA \text{ at } 85^{\circ}\text{C}} - V_{CmA \text{ at } 25^{\circ}\text{C}}}{V_{CmA \text{ at } 25^{\circ}\text{C}}} \times \frac{1}{60} \times 100$
3.4	Max. Clamping Voltage	<b>* (2)</b> V at <b>* (2)</b> A	Peak voltage across the varistor with a specified peak impulse current of 8x 20 μs waveform.
3.5	Withstanding Surge Current	<b>* (2)</b> 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.
3.6	Energy	<b>* (2)</b> Joule	The max. energy absorbed with a varistor voltage change of less than ± 10% when one impulse(10 x 1000 μs) is applied.
3.7	Surge Life	<b>* (2)</b> 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

PART NUMBER	MAXIMUM ALLOWABLE VOLTAGE		VARISTOR VOLTAGE	CLAMPING VOLTAGE (MAX.)		SURGE CURRENT (8/20 $\mu$ s)		MAXIMUM ENERGY (10/1000 $\mu$ s)	SURGE LIFE
	AC <sub>rms</sub> (V)	DC(V)	(V)	(V)	Ip(A)	I <sub>m</sub> (A)		W <sub>m</sub> (joule)	(A)
						1 TIME	2 TIMES		
32D201K	130	170	185~225	340	200	25000	20000	250	300
32D241K	150	200	216~264	395				290	
32D271K	175	225	243~297	455				300	
32D331K	210	275	297~363	550				360	
32D361K	230	300	324~396	595				380	
32D391K	250	320	351~429	650				395	
32D431K	275	350	387~473	710				440	
32D471K	300	385	423~517	775				480	
32D511K	320	415	459~561	845				510	
32D621K	385	505	558~682	1025				580	
32D681K	420	560	612~748	1120				600	
32D751K	460	615	675~825	1240				625	
32D781K	485	640	702~858	1290				650	
32D821K	510	670	738~902	1355				720	
32D911K	550	745	819~1001	1500				760	
32D951K	575	765	885~1045	1570				800	
32D102K	625	825	900~1100	1650				815	
32D112K	680	895	990~1210	1815				880	