



## SPECIFICATIONS

PRODUCT : **VARISTOR**

TYPE : **GNR40D□□□K**

MODEL : **M**

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				

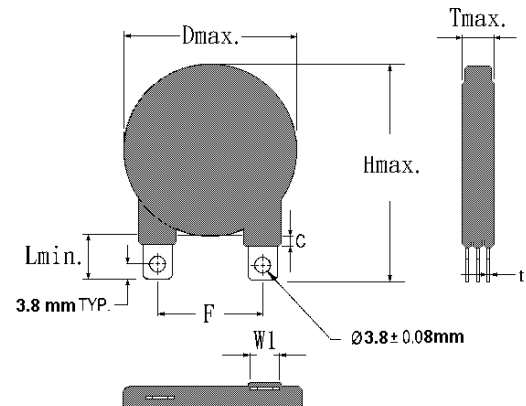
Approved by	Checked by	Edited by
Yu-Chang Huang	Cloud Chen	Andy Chiang

	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.)	48.0
			H(max.)	60.2
			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

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SUBJECT	<b>DIMENSIONS TABLE</b>	REV.	錯誤! 連結無效。
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Part No.	T <sub>max.</sub>
40D201K	7.8
40D241K	8.2
40D271K	8.6
40D331K	9.0
40D361K	9.3
40D391K	9.6
40D431K	10.0
40D471K	10.5
40D511K	10.7
40D621K	11.4
40D681K	11.9
40D751K	12.5
40D781K	12.7
40D821K	13.2
40D911K	14.0
40D951K	14.5
40D102K	15.0
40D112K	16.0

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> Vrms 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

CITATION

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DATE

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SUBJECT

**ELECTRICAL CHARACTERISTICS**

REV.

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PART NUMBER	MAXIMUM ALLOWABLE VOLTAGE		VARISTOR VOLTAGE (V)	CLAMPING VOLTAGE (MAX.)		SURGE CURRENT (8/20 $\mu$ s)		MAXIMUM ENERGY (10/1000 $\mu$ s) $W_m$ (joule)	SURGE LIFE (A)
	AC <sub>rms</sub> (V)	DC(V)		(V)	Ip(A)	I <sub>m</sub> (A)			
			1 TIME			2 TIMES			
40D201K	130	170	185~225	340	250	40000	25000	310	500
40D241K	150	200	216~264	395				360	
40D271K	175	225	243~297	455				390	
40D331K	210	275	297~363	550				460	
40D361K	230	300	324~396	595				475	
40D391K	250	320	351~429	650				490	
40D431K	275	350	387~473	710				550	
40D471K	300	385	423~517	775				600	
40D511K	320	415	459~561	845				640	
40D621K	385	505	558~682	1025				720	
40D681K	420	560	612~748	1120				750	
40D751K	460	615	675~825	1240				780	
40D781K	485	640	702~858	1290				820	
40D821K	510	670	738~902	1355				900	
40D911K	550	745	819~1001	1500				960	
40D951K	575	765	885~1045	1570				1000	
40D102K	625	825	900~1100	1650				1055	
40D112K	680	895	990~1210	1815				1155	