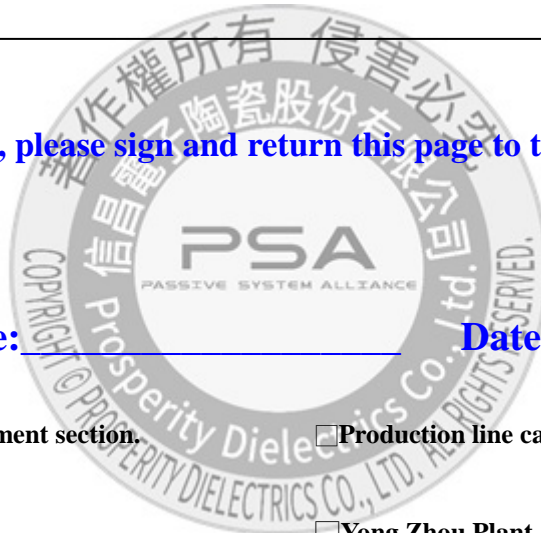


# SPECIFICATION FOR APPROVAL

<b>CUSTOMER</b>	_____
<b>CUST. PART NO.</b>	_____
<b>CUST. DOC. REV.</b>	_____
<b>DESCRIPTION</b>	<u>MOLDED POWER CHOKE (RoHS+H.F.)</u>
<b>SAMPLE LOT NO.</b>	_____
<b>PART NO.</b>	<u>MCS25GC-XXXMHC</u>
<b>DOC. REV.</b>	<u>ORIG</u>
<b>DATE</b>	_____

Once you approve this part, please sign and return this page to the following marked location.



Customer Signature: \_\_\_\_\_ Date: \_\_\_\_\_

This part currently development section.       Production line can produce this series of products.

Sales Office-Headquarter

No. 566-1, Kao-Shi Rd., Yangmei, Taoyuan 32668,  
Taiwan  
TEL: +886-3-475-3355  
FAX: +886-3-485-4959

Yong Zhou Plant

Tao-Yuan Rd., Fenghuang Park, Lengshuitan  
District, Yongzhou, Hunan 425000, P.R.C.  
TEL: +86-746-8610-180  
FAX: +86-746-8610-181

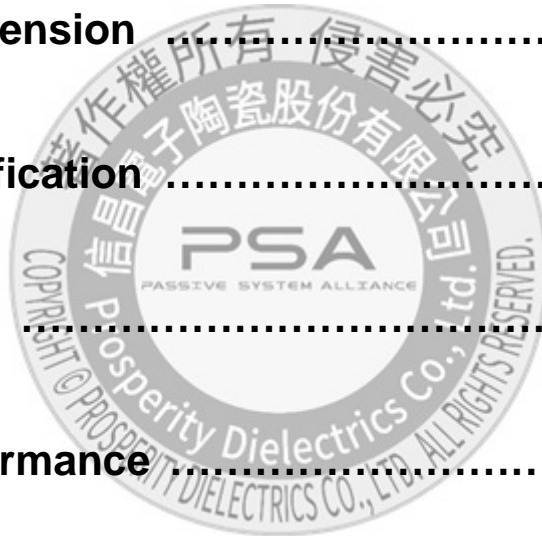
Sales Office-Dong Guan,China

No.638,Mei Jing West Road Xiniupo Administrative  
Zone Dalang Town,Dong Guan City,GuangDong  
Province,China.  
TEL: +86-769-8555-0979  
FAX: +86-769-8555-0972

TESTED BY	CHECKED BY	APPROVED BY

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# SPECIFICATION FOR APPROVAL

CUSTOMER	CUSTOMER P/N	REV. —	SPL. LOT NO.	
PART NAME <b>MOLDED POWER CHOKE(RoHS+H.F.)</b>	PART NO. <b>MCS25GC-XXXMHC</b>	REV. <b>ORIG</b>	DATE OF ISSUE	Q'TY <b>0 PCS</b>

## ENGINEERING CHANGE NOTICE - RECORD

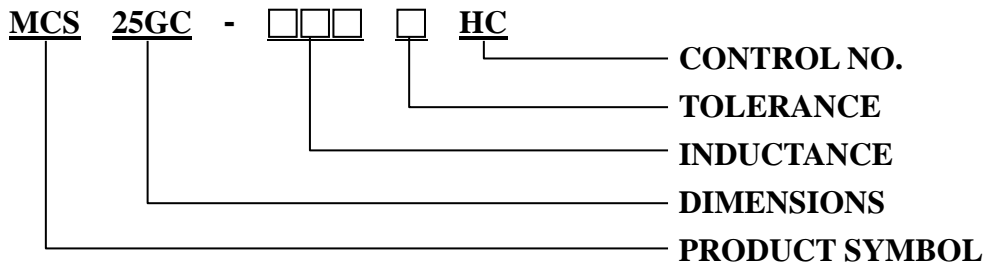
REVISION NO.	REVISION DESCRIPTION	AUTHOR	DATE	REMARK
<b>ORIG</b>		<i>Gary Chang</i>		



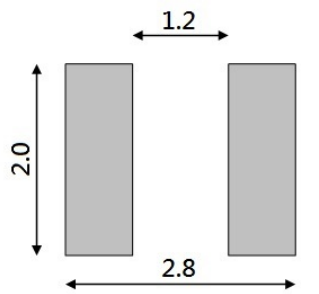
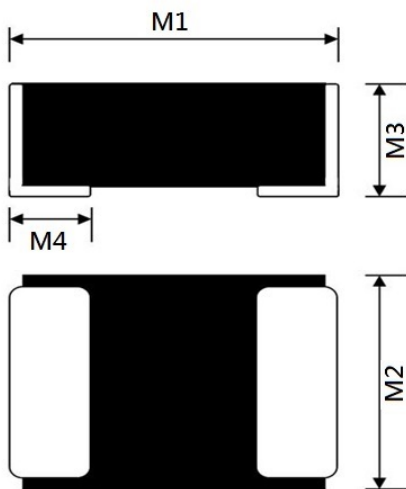
# SPECIFICATION FOR APPROVAL

- ✘ This is a RoHS and REACH compliant product whose related documents are available on request.
- ✘ Graphic is only for dimensionally application.

## 1. PART NUMBERING IDENTIFICATION



## 2. MECHANICAL DIMENSION



UNIT: mm

	DIM.	TOL.
M1	2.5	±0.2
M2	2.0	±0.2
M3	1.0	MAX.
M4	0.6	±0.3

## 3. ELECTRICAL SPECIFICATION

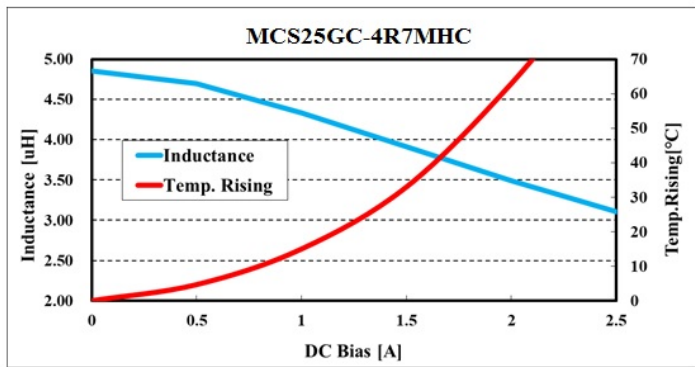
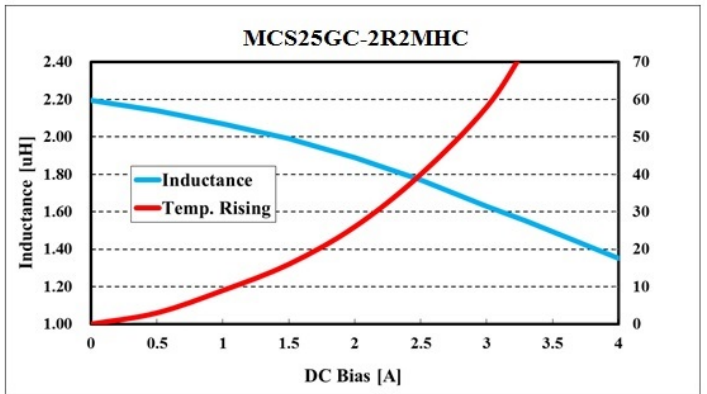
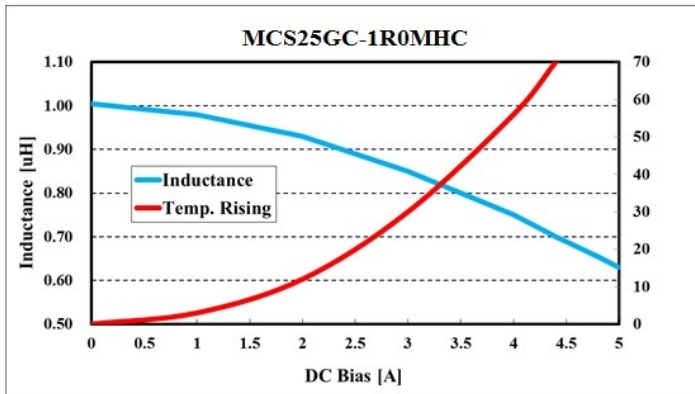
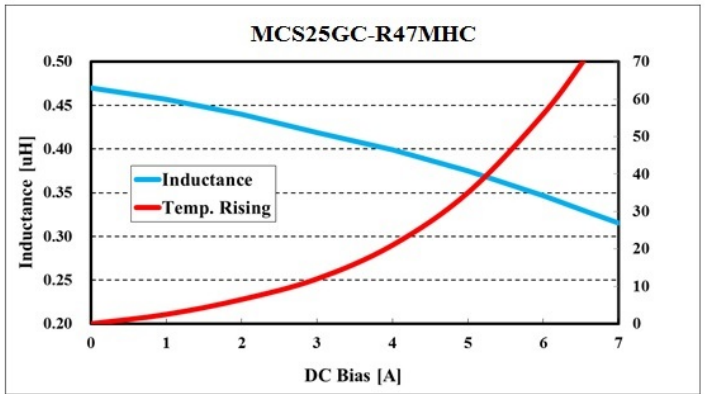
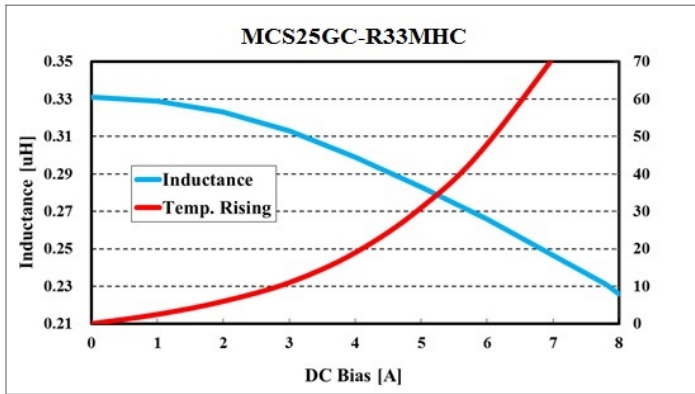
Part number	Inductance	DC Resistance	DC Resistance	Irms	Irms	I sat	I sat
	(uH) ±20%	(mΩ) Typical	(mΩ) MAX.	(A) Typical	(A) MAX.	(A) Typical	(A) MAX.
MCS25GC-R33MHC	0.33	17	22	5.6	4.8	7.8	7.0
MCS25GC-R47MHC	0.47	23	29	5.2	4.4	6.6	6.0
MCS25GC-1R0MHC	1.0	41	52	3.4	3.1	4.4	4.0
MCS25GC-2R2MHC	2.2	88	110	2.4	2.1	3.3	3.0
MCS25GC-4R7MHC	4.7	200	240	1.6	1.4	2.2	1.9

NOTE:

1. Test Freq.: 1MHz, 1V
2. All test referenced to 26°C ambient.
3. Operating Temperature range: -40°C to +125°C
4. Storage Temperature range: -50°C to +125°C
5. Isat means that DC current will cause a 30% inductance reduction from initial value.
6. Irms means that DC current will cause coil temp. rising to 40°C whichever is smaller.

# SPECIFICATION FOR APPROVAL

## 4. ELECTRICAL CURVE



# SPECIFICATION FOR APPROVAL

## 5. RELIABILITY PERFORMANCE

Test Item	Test Condition	Criteria
Resistance to Solder Heat	<ol style="list-style-type: none"> <li>1. Solder temperature: <math>260\pm 5^{\circ}\text{C}</math></li> <li>2. Flux: Rosin</li> <li>3. DIP time: <math>10\pm 1</math> sec</li> </ol>	<ol style="list-style-type: none"> <li>1. More than 95% of terminal electrode should be covered with new solder</li> <li>2. No mechanical damage</li> <li>3. Inductance value should be within <math>\pm 20\%</math> of the initial value</li> </ol>
Adhesive Test	<ol style="list-style-type: none"> <li>1. Reflow temperature: <math>245^{\circ}\text{C}</math> It shall be Soldered on the substrate applying direction parallel to the substrate</li> <li>2. Apply force(F): 5N</li> <li>3. Test time: 10 sec</li> </ol>	<ol style="list-style-type: none"> <li>1. No mechanical damage</li> <li>2. Soldering the products on PCB after the pulling test force <math>&gt; 5\text{N}</math></li> </ol>
Temperature Cycle	<ol style="list-style-type: none"> <li>1. Temperature: <math>-50 \sim 125^{\circ}\text{C}</math> For 30 minutes each</li> <li>2. Cycle: 500 cycles</li> <li>3. Measurement: At ambient temperature 24 hours after test completion</li> </ol>	<ol style="list-style-type: none"> <li>1. No mechanical damage</li> <li>2. Inductance should be within <math>\pm 20\%</math> of the initial value</li> </ol>
Dry Heat Test	<ol style="list-style-type: none"> <li>1. Temperature: <math>85\pm 2^{\circ}\text{C}</math></li> <li>2. Testing time: 500 hrs</li> <li>3. Applied current: Full rated current</li> <li>4. Measurement: At ambient temperature 24 hours after test completion</li> </ol>	<ol style="list-style-type: none"> <li>1. No mechanical damage</li> <li>2. Inductance should be within <math>\pm 20\%</math> of the initial value</li> </ol>
Humidity Test	<ol style="list-style-type: none"> <li>1. Temperature: <math>60\pm 2^{\circ}\text{C}</math></li> <li>2. Humidity: 90-95% RH</li> <li>3. Applied current: Full rated current</li> <li>4. Testing time: 500 hrs</li> <li>5. Measurement: At ambient temperature 24 hours after test completion</li> </ol>	<ol style="list-style-type: none"> <li>1. No mechanical damage</li> <li>2. Inductance should be within <math>\pm 20\%</math> of the initial value</li> </ol>

# SPECIFICATION FOR APPROVAL

## 6. TYPICAL RoHS REFLOW PROFILE

