



# SPECIFICATION FOR APPROVAL

CUSTOMER	_____
CUST. PART NO.	_____
CUST. DOC. REV.	_____
DESCRIPTION	<u>MOLDING POWER CHOKE(RoHS+H.F.)</u>
SAMPLE LOT NO.	_____
PART NO.	<u>MCS0618-XXXXN1</u>
DOC. REV.	<u>ORIG</u>
DATE	_____

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.

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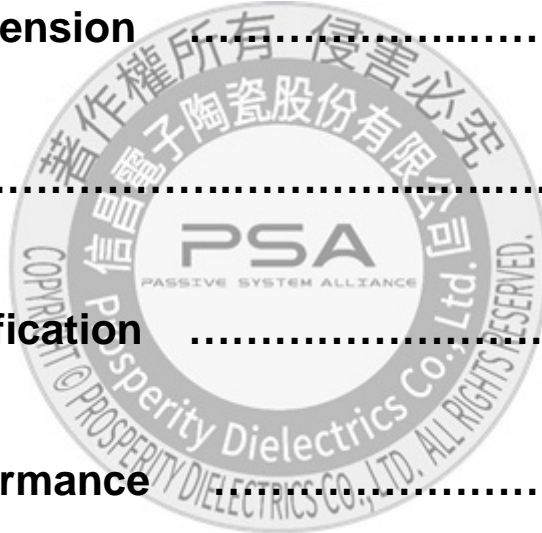
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TESTED BY	CHECKED BY	APPROVED BY

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# SPECIFICATION FOR APPROVAL

<b>CUSTOMER</b>	<b>CUSTOMER P/N</b>	<b>REV.</b> -	<b>SPL. LOT NO.</b>	
<b>PART NAME</b> MOLDING POWER CHOKE(RoHS+H.F.)	<b>PART NO.</b> MCS0618-XXXXN1	<b>REV.</b> ORIG	<b>DATE OF ISSUE</b>	<b>Q'TY</b> 0 PCS

## ENGINEERING CHANGE NOTICE - RECORD

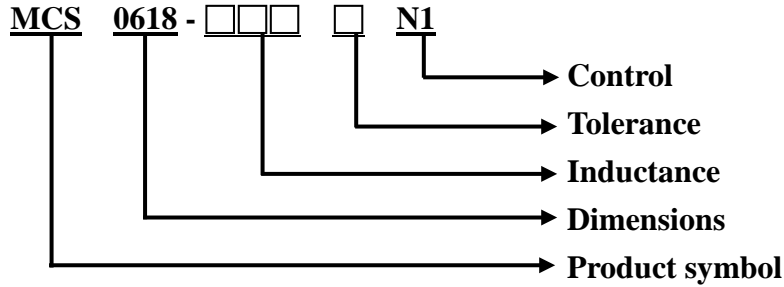
REVISION NO.	REVISION DESCRIPTION	AUTHOR	DATE	REMARK
ORIG		Gary Chang		



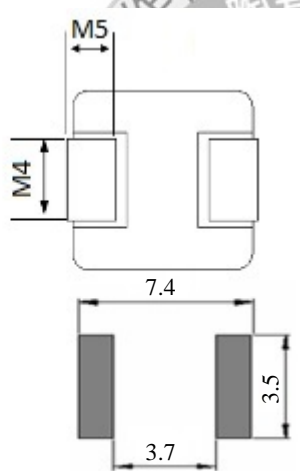
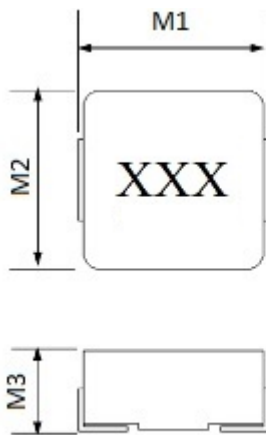
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※This is a RoHS and REACH compliant product whose related documents are available on request.  
 ※Graphic is only for dimensionally application.

## 1. PART NUMBERING IDENTIFICATION



## 2. MECHANICAL DIMENSION

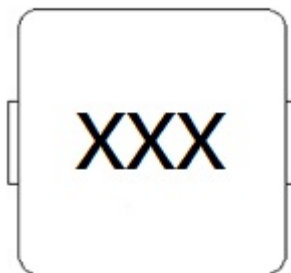


UNIT: mm

	DIM.	TOL.
M1	7.1	±0.3
M2	6.6	±0.3
M3	1.8	MAX.
M4	3.0	±0.3
M5	1.6	±0.5

## 3. MARKING

XXX = Inductance code



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## 4. ELECTRICAL SPECIFICATION

Part number	Inductance (uH) ±20%	DC Resistance (mΩ) Typical	DC Resistance (mΩ) MAX.	Rated Current (A) Typical	I sat (A) Typical
MCS0618-R10MN1	0.10	3.0	3.5	18	40
MCS0618-R22MN1	0.22	5.3	5.7	14	26
MCS0618-R47MN1	0.47	8.4	9.3	11	18
MCS0618-R68MN1	0.68	12.7	13.9	9	17
MCS0618-R82MN1	0.82	13.8	15.9	8	17
MCS0618-1R0MN1	1.0	17.5	18.3	7	14
MCS0618-2R2MN1	2.2	40.3	46.0	3.75	11
MCS0618-4R7MN1	4.7	76.6	78.0	3.0	8

TEST INSTRUMENT: Zentech-3305 / Zentech502BC

**NOTE:**

1. Test Freq.: 100KHz, 1.0V
2. All test data is referenced to 25°C ambient
3. Operating Temperature Range -25°C to +125°C
4. Storage Temperature Range: -20°C~+40°C(<60% R.H.).
5. Typical Heat Rating DC Current would cause an approximately ΔT of 40°C
6. Typical Saturation DC Current would cause Lo to drop approximately 30%
7. The Part temperature (ambient + ΔT) should not exceed 125°C under worst case operating conditions
8. Circuit design, component placement, PWB trace size and thickness, airflow and other cooling provisions all effect the part temperature. Part temperature should be verified in the end application.
9. MSL: Level 1



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## 5. RELIABILITY PERFORMANCE

### Reliability Experiment For Electrical

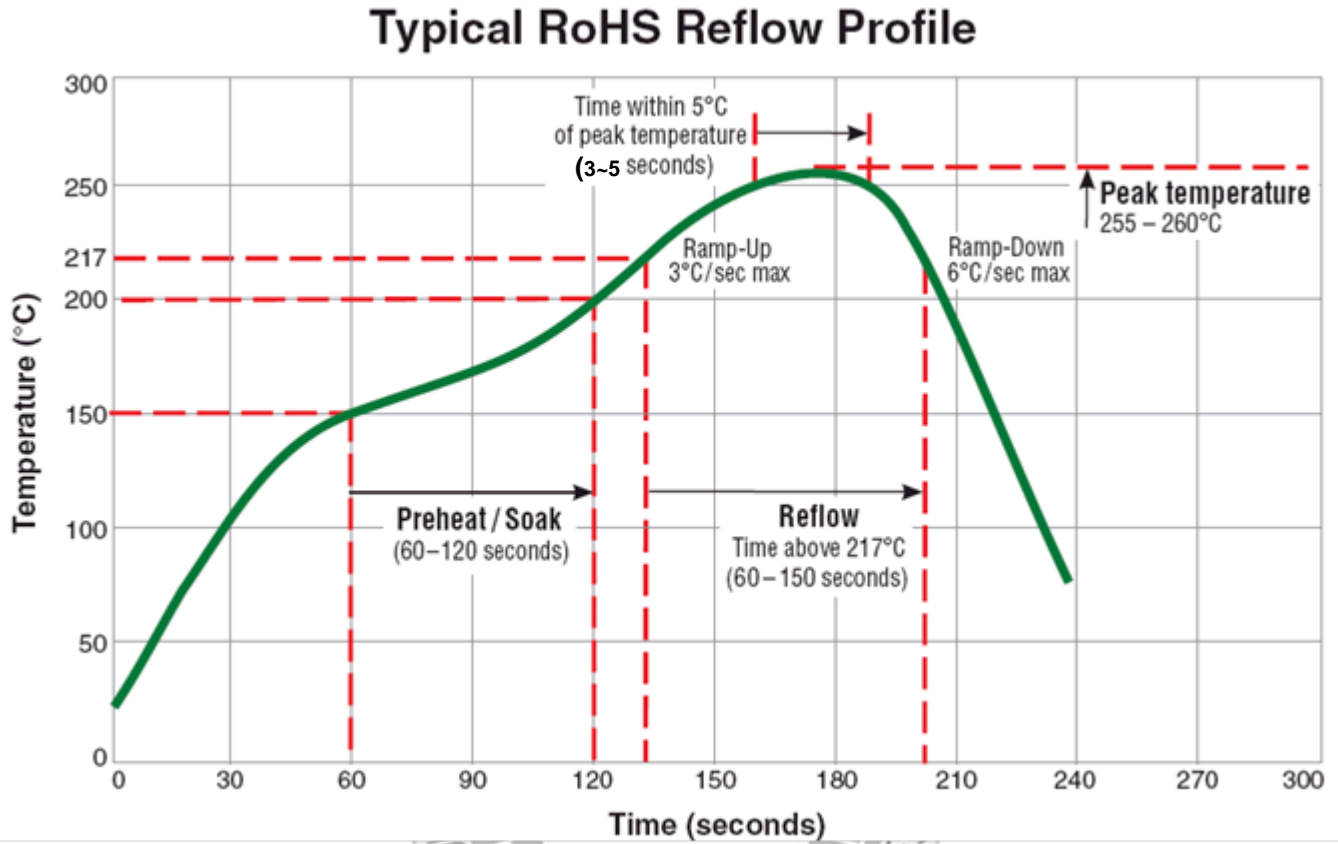
Test Item	Accept criteria	Test Condition	Standard Source
Humidity Test	1.Change from an initial value L:within±5% 2.no visible damage.	+40°C ± 2°C, humidity of 90% ±5% (total 96 hours).	MIL-STD-202G Method 103B Test Condition B
High Temperature Test	1.Change from an initial value L:within±5% 2.no visible damage.	1.Temperature: +125°C±2°C. 2.Test time: 48±2hrs.	IEC 68-2 Test Condition B
Low Temperature Test	1.Change from an initial value L:within±5% 2.no visible damage.	1.Temperature: -25°C±2°C. 2.Test time: 48±2hrs.	IEC 68-2 Test Condition A
Thermal Shock	1.Change from an initial value L:within±5% 2.no visible damage.	+125°C±5°C (30 minutes) ~ -55±5°C (30 minutes), temperature switch time: 5 minutes (total 50 cycles) Wind speeds 10m/sec.	Reference MIL-STD-202G Method 107G Test Condition A-2
Life Test	1.Change from an initial value L:within±5% 2.no visible damage.	+70°C±5°C (250Hours).	Reference MIL-STD-202G Method 108A Test Condition B

### Reliability Experiment For Physical

Test Item	Accept criteria	Test Condition	Standard Source
Vibration Test	1.Change from an initial value L:within±5% 2.no visible damage.	10-55-10HZ, amplitude: 1.5mm, direction: X, Y, Z axes, each axis 2 hours (total 6 hours).	MIL-STD-202G Method 201A
Solder Heat Resistance Test	1.no visible damage.	IR/convection reflow: Peak Temp 255°C ~260°C for 3~5 Sec. in air, Through 2 Cycle. Temperature Ramp:+1~4°C/sec.; Above 217°C, must keep 90 s - 120 s.	Reference MIL-STD-202G Method 210F Test Condition K (Reflow)
Solder Ability Test	1. Lead must have 95% above coverage.	Soak in 245°C solder pot of 3~5 Sec.	Reference J-STD-002D

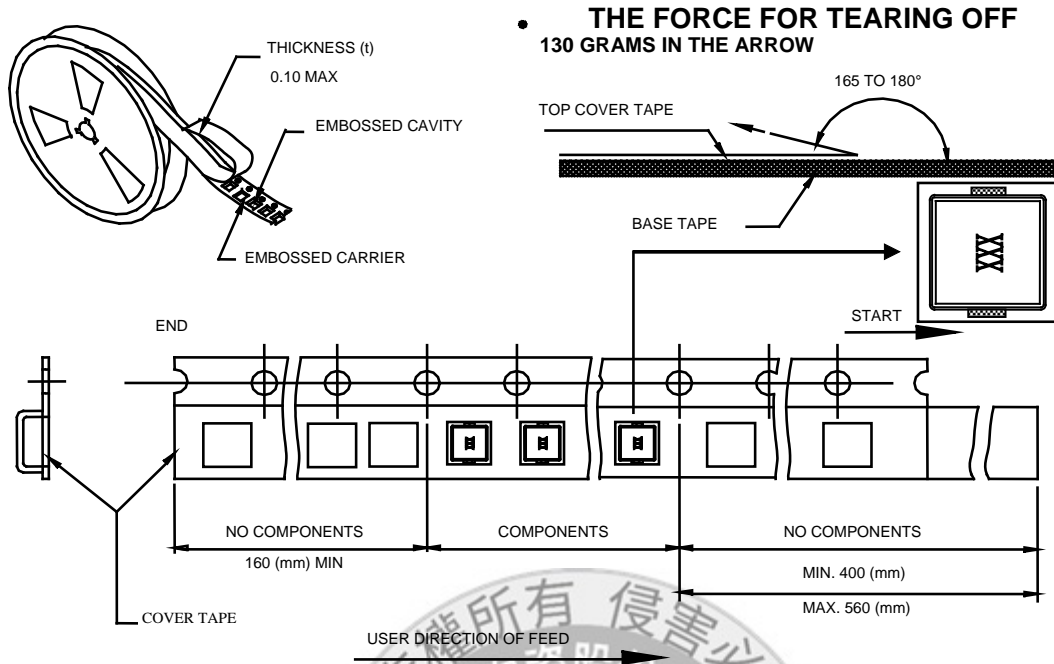
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## 6. TYPICAL RoHS REFLOW PROFILE



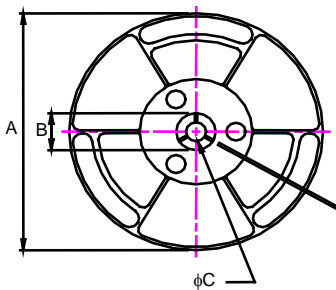
# SPECIFICATION FOR APPROVAL

## 7. PACKING



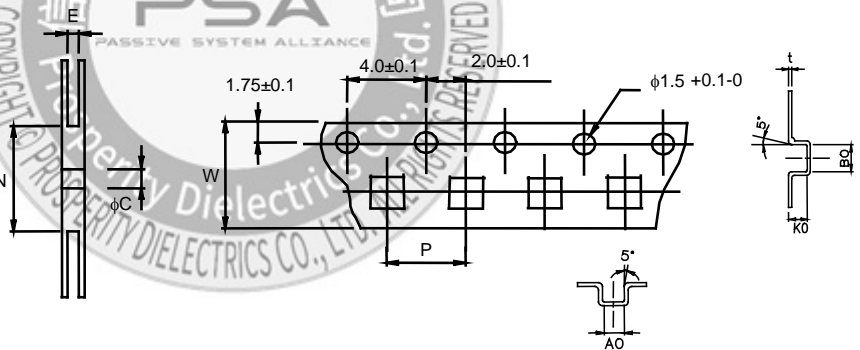
### ■ CARRIER TAPE REELS (mm)

MATERIAL: PLASTIC



**2000 Parts per Reel**

### ■ DIMENSIONS OF CARRIER TAPE (mm)



※ 10 sprocket hole pitch cumulative tolerance  $\pm 0.20$

UNIT: mm

	A	B	C	E	N	P	W	t	A0	B0	K0
<b>DIM.</b>	330	25	13	16.6	100	12	16	0.3	7	7.8	2.1
<b>TOL.</b>	$\pm 0.2$	$\pm 0.5$	$\pm 0.5$	$\pm 0.5$	MIN.	$\pm 0.1$	$\pm 0.3$	$\pm 0.05$	$\pm 0.1$	$\pm 0.1$	$\pm 0.1$