PSA

SPECIFICATION FOR APPROVAL

CUSTOMER	
CUST. PART NO.	
CUST. DOC. REV.	
DESCRIPTION	HIGH CURRENT POWER CHOKE(ROHS+H.F)
SAMPLE LOT NO.	S201809-0056
PART NO.	MCS0530-XXXMN2
DOC. REV.	ORIG
DATE	9/18/'18

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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TESTED BY	CHECKED BY	APPROVED BY
Zhikai Deng	Tieqiao Gong	Shengjun Zhou

PROSPERITY DIELECTRICS CO., LTD.

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PART NAME	**PART NO.**	**REV.**	**DATE OF ISSUE**	**Q'TY**
HIGH CURRENT POWER CHOKE(ROHS+H.F)	MCS0530-XXXMN2	ORIG	9/18/'18	0 PCS

ENGINEERING CHANGE NOTICE - RECORD

REVISION NO.	REVISION DESCRIPTION	AUTHOR	DATE	REMARK
ORIG		*Zhikai Deng*	*9/18/'18*	

SPECIFICATION FOR APPROVAL

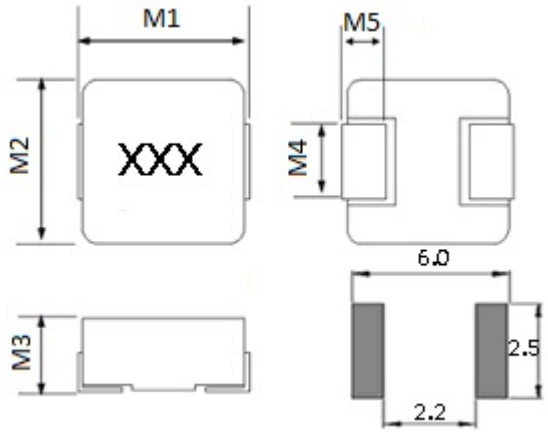
※This is a RoHS and REACH compliant product whose related documents are available on request.
※Graphic is only for dimensionally application.

1. PRODUCT IDENTIFICATION

MCS 0530-□□□ □ □□

Control	(Control No:)
Tolerance	(M=±20%)
Inductanec	(2R2=2.2μH)
Dimensions	(0530=5.4 mm x 5.2 mm x 3.0 mm)
Product symbol	(Series No:)

2. PRODUCT DIMENSION



UNIT: mm

	DIM.	TOL.
M1	5.4	±0.3
M2	5.2	±0.3
M3	3.0	Max
M4	2.2	±0.3
M5	1.2	±0.2

3. MARKING AND DATE CODE

Marking ex:2.2uH ➔2R2

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4. ELECTRICAL SPEC.

PART NO.	Inductance (uH)±20%	DCR mΩ Typical 25℃	DCR mΩ MAX.25℃	Rated Current Typical (A)	I sat Typical (A)
MCS0530-R20MN2	0.20	3.5	3.9	18.0	14.5
MCS0530-R47MN2	0.47	7.4	8.5	13.5	12.0
MCS0530-R68MN2	0.68	11	12	8.5	14.0
MCS0530-1R0MN2	1.0	13	14	7.0	11.0
MCS0530-1R2MN2	1.2	15	16	6.5	11.0
MCS0530-1R5MN2	1.5	20	25	6.0	8.5
MCS0530-2R2MN2	2.2	25	29	5.5	7.5
MCS0530-3R3MN2	3.3	32	38	5.0	6.0
MCS0530-4R7MN2	4.7	50	60	3.5	5.0
MCS0530-6R8MN2	6.8	75	90	3.0	4.0
MCS0530-100MN2	10	110	125	2.5	3.5

TEST INSTRUMENT: CHROMA 16502 、Zentech1320+Zentech3305

(1). Test Freq **:** 100KHz , 0.5V

(2). All test data is referenced to 25℃ ambient.

(3). Operating Temperature Range -55℃ to +125℃.

(4). Rated Current: DC current**(A)**that will cause an approximate△T of 40℃.

(5). I sat: DC current(A)that will cause Lo to drop approximately 30%.

(6). The part temperature(ambient +temp rise)should not exceed 125℃ under worst case operating conditions. Circuit design, component placement, PWB trace size and thickness, airflow and other cooling provisions all affect the part temperature Part temperature should be verified

5. RELIABILITY PERFORMANCE

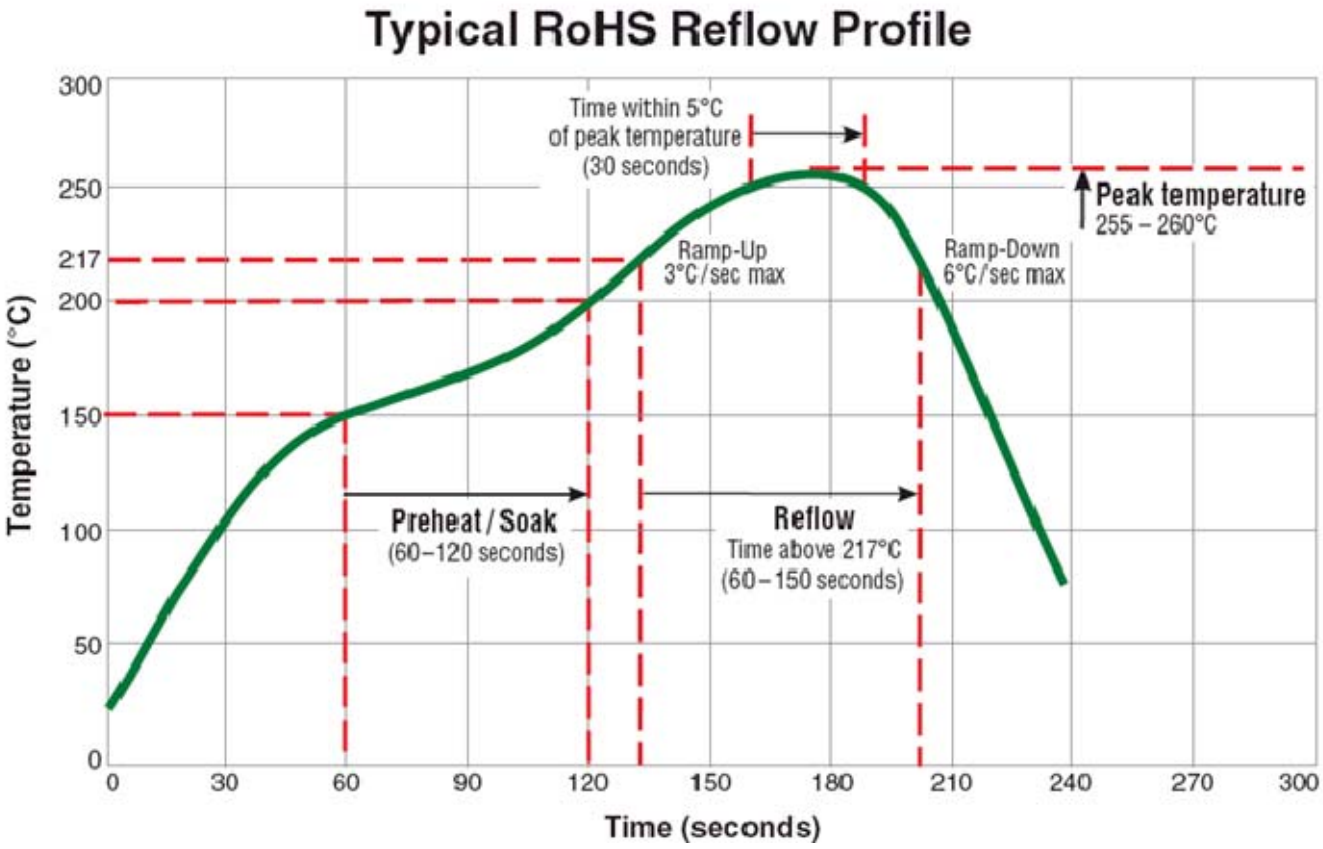
Reliability Experiment For Electrical

Test Item	Test Condition	Standard Source
Humidity Test	+40℃± 2℃, humidity of 90% ± 5% (total 96 hours).	MIL-STD-202G Method 103B Test Condition B
High Temperature Test	1.Temperature: +125℃±2℃ 2.Test time: 48±2hrs	IEC 68-2 Test Condition B
Low Temperature Test	1.Temperature: -40℃±2℃ 2.Test time: 48±2hrs	IEC 68-2 Test Condition A
Thermal Shock	+125℃±5℃ (30 minutes) ~ -40 ± 5℃ (30 minutes), temperature switch time: 5 minutes (total 50 cycles).	MIL-STD-202G Method 107G Test Condition B-2
Life Test	+70℃±5℃ (250Hours)	MIL-STD-202G Method 108A Test Condition B

Reliability Experiment For Physical

Test Item	Test Condition	Standard Source
Vibration Test	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	IR/convection reflow:Peak Temp 260±5℃ for 30Sec in air, Through 2 Cycle. Temperature Ramp:+1~4℃/sec; Above 217°C, must keep 90 s - 120 s.	J-STD-020D Classification Reflow Profiles
Solder Ability Test	Soak in 245 ℃ solder pot of 3Sec, PAD must have 95% above coverage.	J-STD-003B

6. TYPICAL RoHS REFLOW PROFILE



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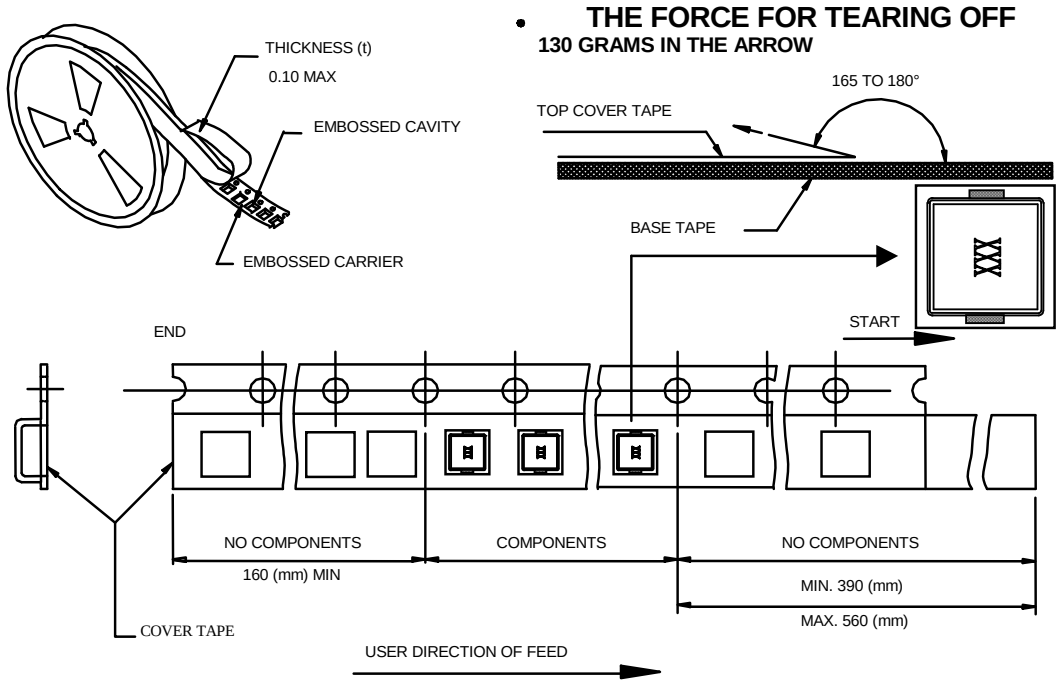
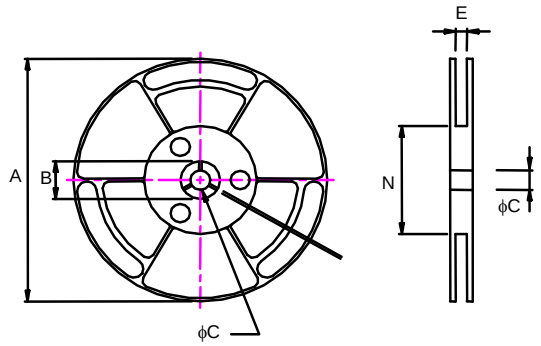
7. PACKAGING



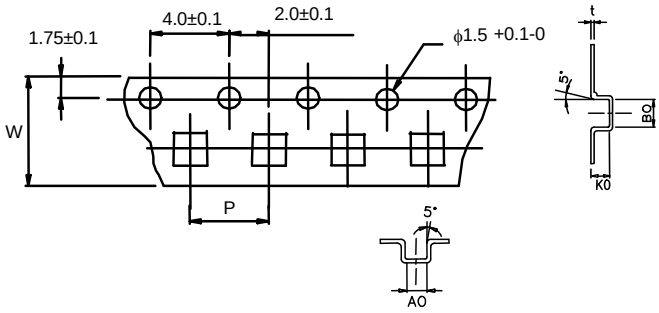
CARRIER TAPE REELS (mm)

MATERIAL: PLASTIC



2000 Parts per Reel

DIMENSIONS OF CARRIER TAPE (mm)



※ 10 sprocket hole pitch cumulative tolerance ±0.20

UNIT : mm

	A	B	C	E	N	P	W	t	A0	B0	K0
DIM.	330	25.0	13.0	12.5	100	8.0	12.0	0.4	5.7	5.9	3.6
TOL.	±0.2	±0.5	±0.5	±0.5	MIN	±0.1	±0.3	±0.05	±0.1	±0.1	±0.1