

Product Analysis Report

Work Order:	250206	Quantity Received:	14891
Customer:	ICFORTUNE	Quantity Inspected:	13
PO Number:	N/A	Report Date/Time:	9/6/23 4:34 PM
Prepared By:	Summer Cao	Approved by:	Dream Hu

PRODUCT INFORMATION

Part Number:	MIC2017YM6-TR	Package Type:	SOT-23-6
Manufacturer:	Microchip Technology		
Product Description:	Fixed and Adjustable Current Limiting Power Distribution Switches		
Datasheet Reference:	https://www.mouser.cn/datasheet/2/268/MIC20xx_Fixed_and_Adjustable_Current_Limiting_Powe-2930337.pdf		

REPORT SUMMARY

Result:	Acceptable	Quality Risk Level:	<div></div>
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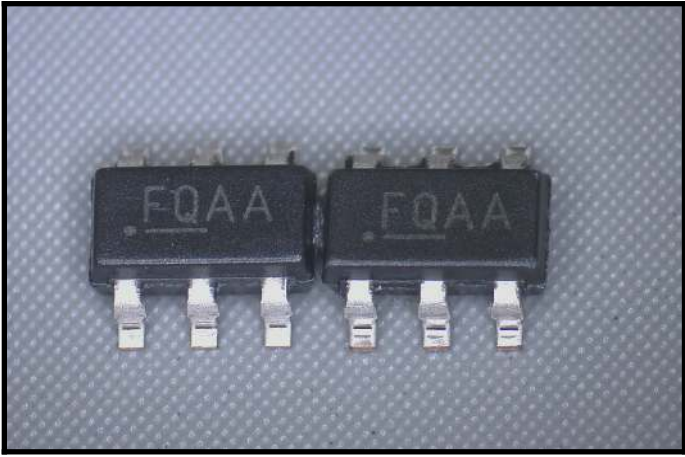
14891 pieces of Microchip Technology MIC2017YM6-TR were received for analysis, from which 13 pieces were used for External Visual Inspection (EVI). Product arrived in reel and cut tape with appropriate ESD protective packaging.

Samples pass chemical solution and scrape tests for remarking and resurfacing, indicating that they are not remarked.

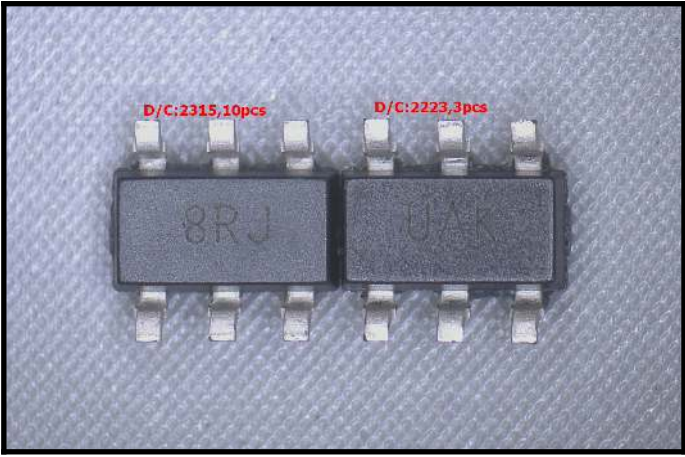
Samples exhibit exposed base metal from trimming and stress marks from forming, indicating that they are not re-plated. Parts do not exhibit solder remnants or any indication of prior use.

Dimensions D, E, E1, A, A2, e and b were measured and were within manufacturer specification. The devices have the same exterior configuration as shown on the Package Outline Drawing (POD).

With respect to the observation of quality risk or evidence of counterfeiting, there were low quality risk and no evidence of counterfeiting found with the test samples based on the testing performed.



Body (top-side)



Body (bottom-side)

EXTERNAL VISUAL INSPECTION

REMARKING / RESURFACING TEST

Pass:	2	Fail:	0
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MARKING INSPECTION

Pass:	13	Fail:	0	F.A.R:	0
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BODY INSPECTION

Pass:	13	Fail:	0	F.A.R:	0
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TERMINAL INSPECTION

Pass:	13	Fail:	0	F.A.R:	0
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MECHANICAL CHARACTERISTICS INSPECTION

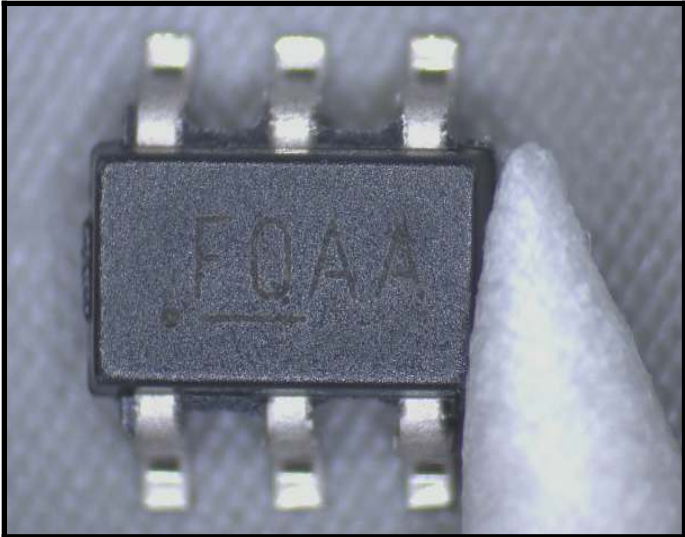
Pass:	13	Fail:	0	F.A.R:	0
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DOCUMENT AND PACKAGE INSPECTION

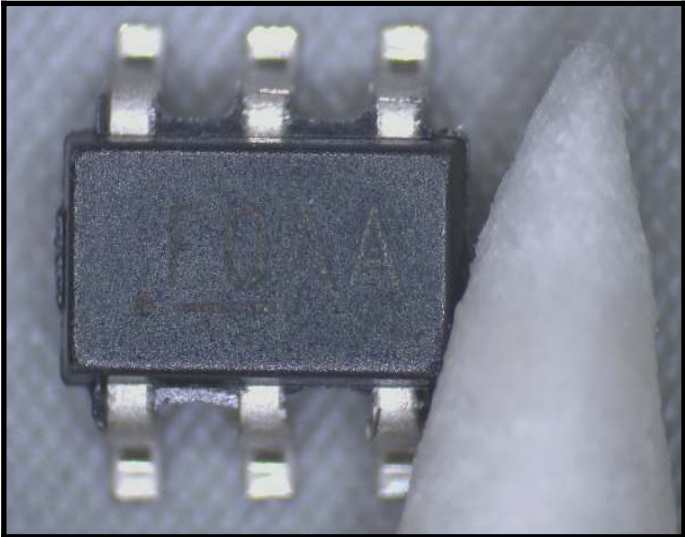
Number of Boxes:	1
Document & Labels:	Match
Date Code:	2315, 2223(label)
Lot Code:	240200011000STAR, 240200011100STAR(label)

GENERAL INSPECTION

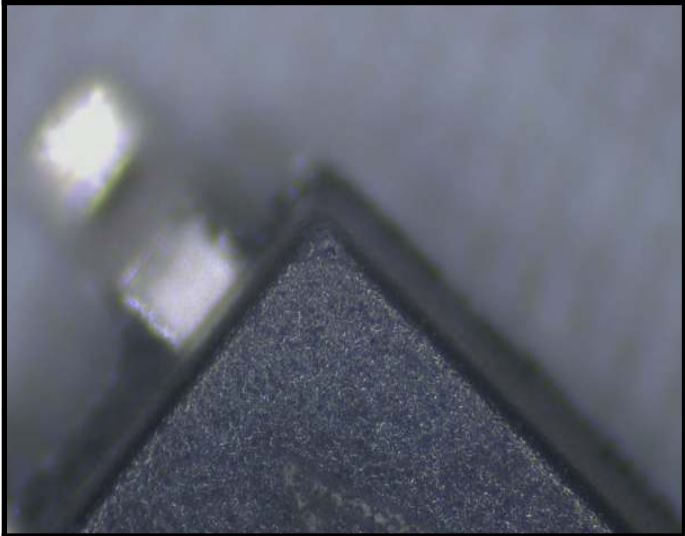
Package Carrier:	Reel and cut tape
ESD Protection:	Yes
MSL Protection:	MSL 1,N/A
Country of Mfg.:	Thailand



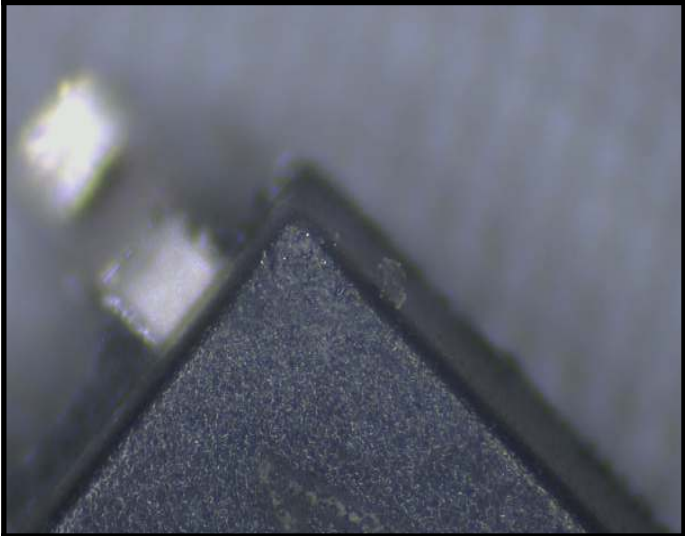
Marking (top-side) D/C:2223	Before chemical resurfacing test
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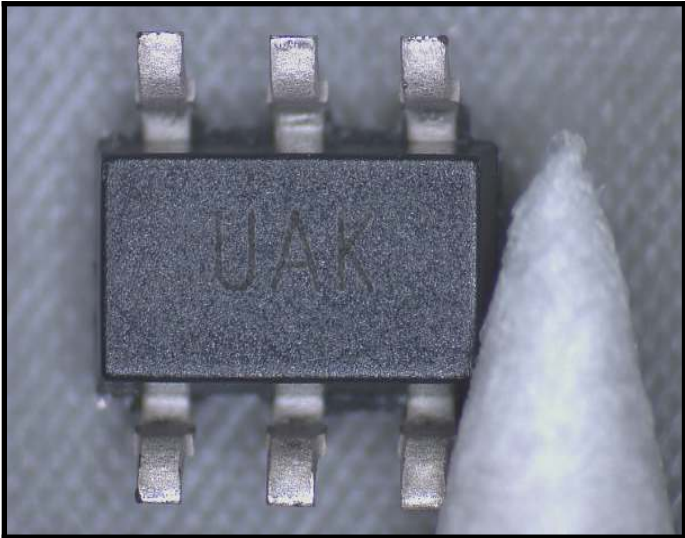
Marking (top-side) D/C:2223	After chemical resurfacing test (Pass)
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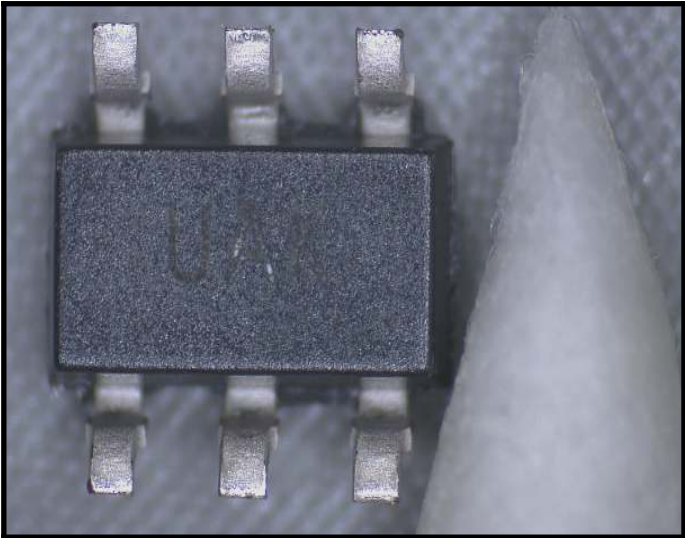
Marking (top-side) D/C:2223	Before mechanical resurfacing test
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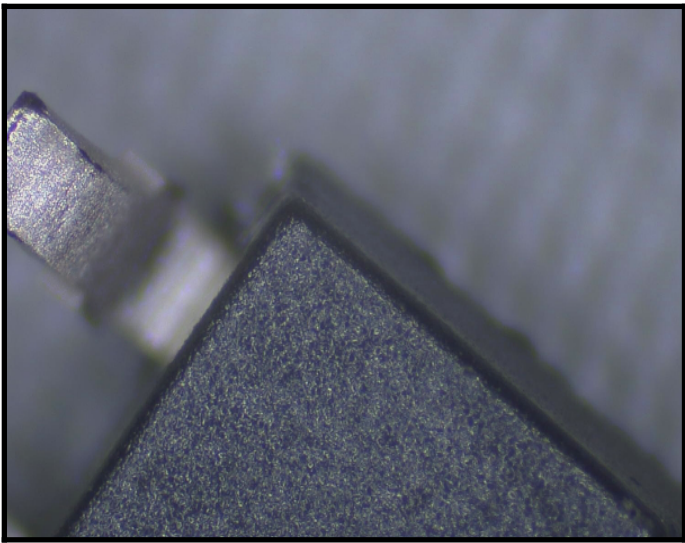
Marking (top-side) D/C:2223	After mechanical resurfacing test (Pass)
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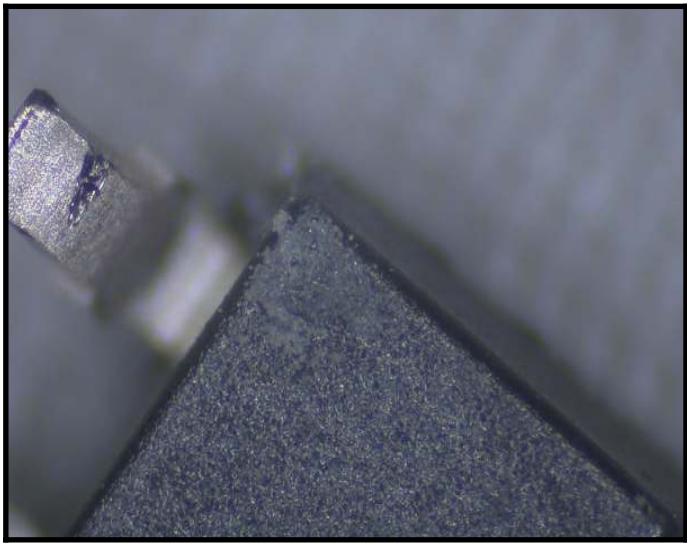
Marking (bottom-side) D/C:2223	Before chemical resurfacing test
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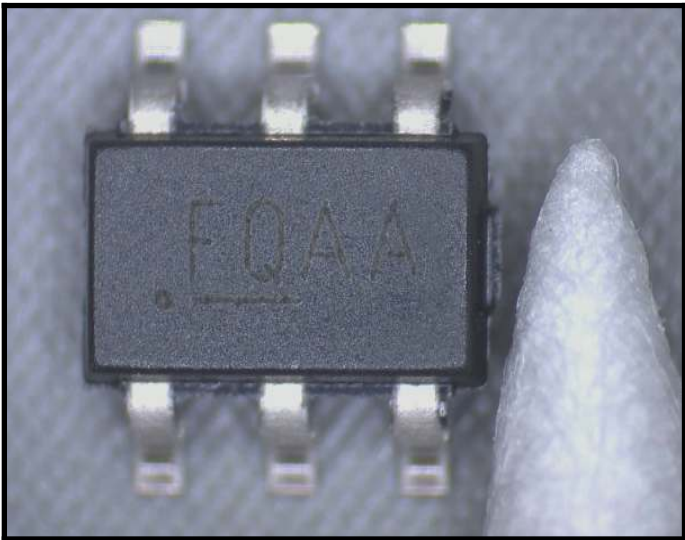
Marking (bottom-side) D/C:2223	After chemical resurfacing test (Pass)
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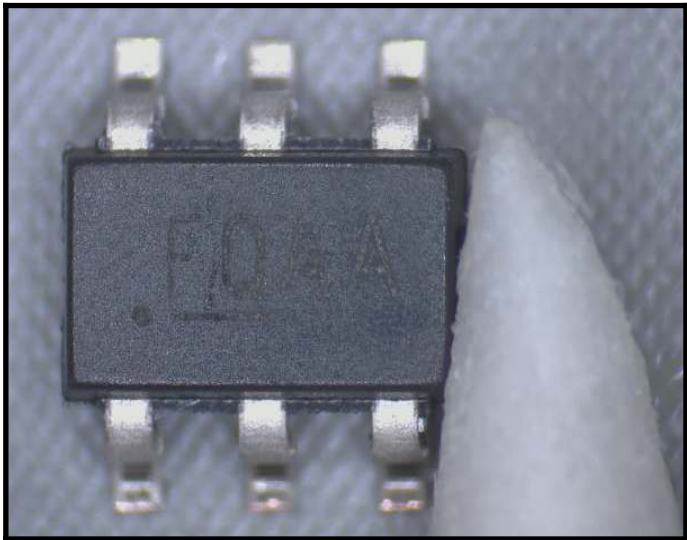
Marking (bottom-side) D/C:2223	Before mechanical resurfacing test
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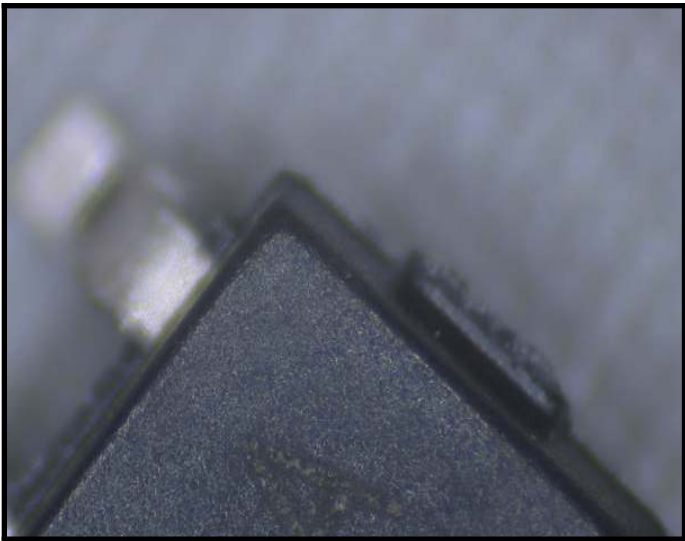
Marking (bottom-side) D/C:2223	After mechanical resurfacing test (Pass)
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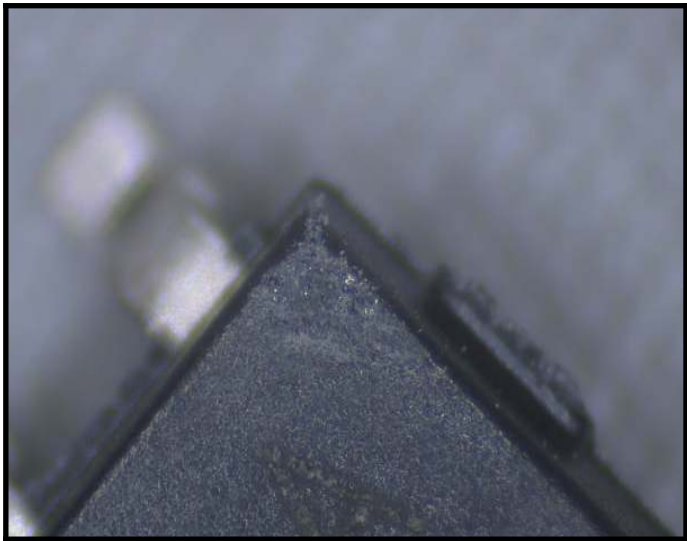
Marking (top-side) D/C:2315	Before chemical resurfacing test
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Marking (top-side) D/C:2315	After chemical resurfacing test (Pass)
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Marking (top-side) D/C:2315	Before mechanical resurfacing test
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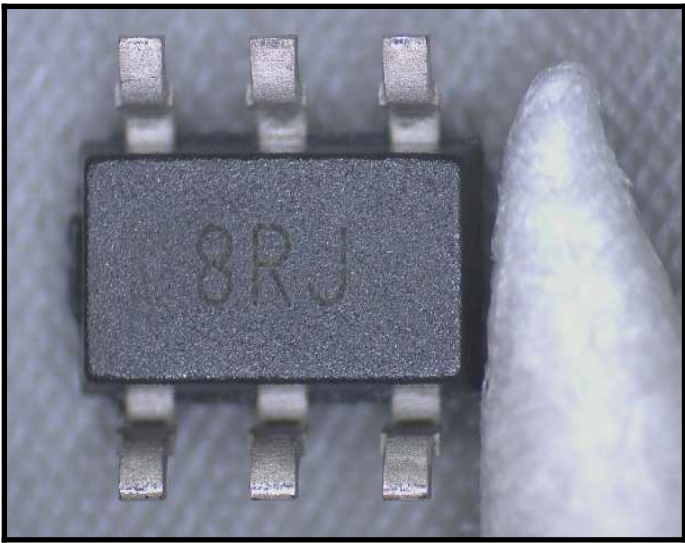
Marking (top-side) D/C:2315	After mechanical resurfacing test (Pass)
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Address:
WHITE HORSE LABORATORIES SINGAPORE PTE. LTD
10 Genting Lane #05-00 Jay Gee Melwani Singapore

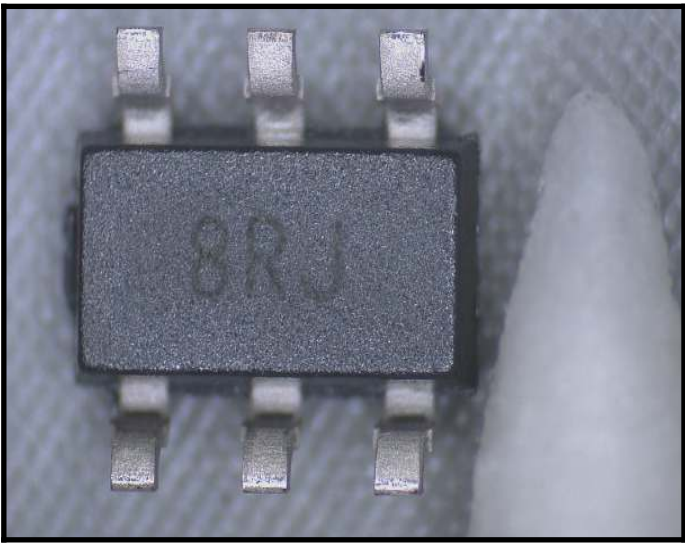
Phone Number
+65 6539 9638

URL:
<http://whitehorselabs.com>

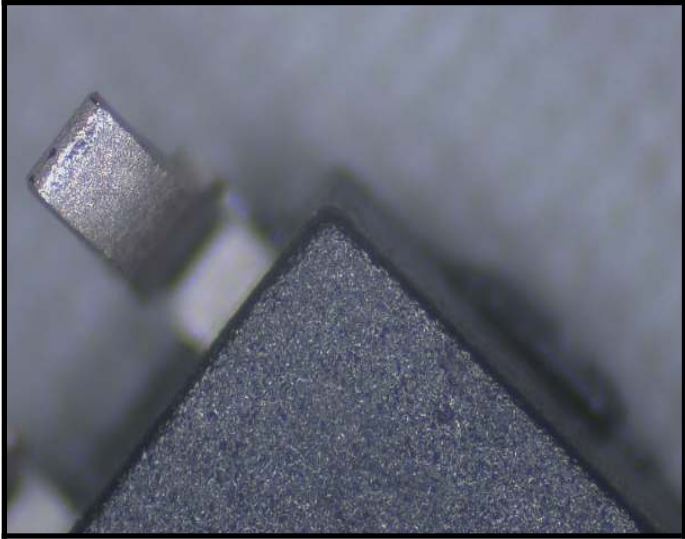
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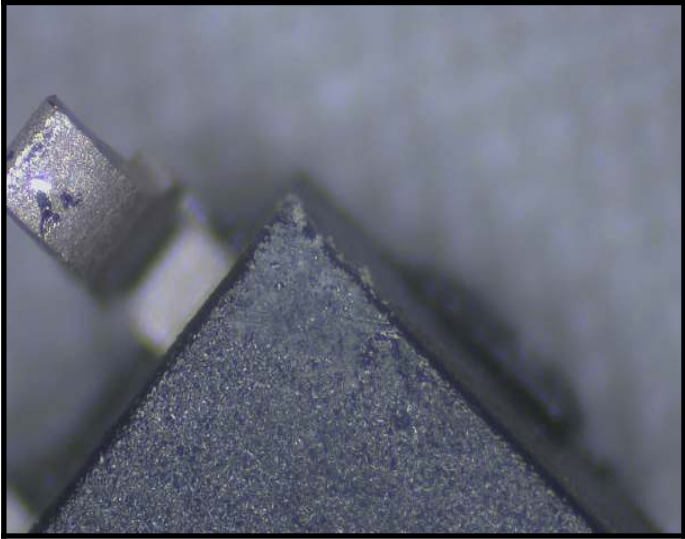
Marking (bottom-side) D/C:2315 Before chemical resurfacing test



Marking (bottom-side) D/C:2315 After chemical resurfacing test (Pass)



Marking (bottom-side) D/C:2315 Before mechanical resurfacing test



Marking (bottom-side) D/C:2315 After mechanical resurfacing test (Pass)

6.1 Package Marking Information

5-Lead SOT-23* (Front)

XXXX

5-Lead SOT-23* (Back)

NNN

6-Lead SOT-23* (Front)

XXXX

6-Lead SOT-23* (Back)

NNN

6-Lead DFN*

XXX
NNN

Example

FD08

Example

QAA
6D8

Example

6SC

Example

FA54

Example

WS7

Legend:

XX_X

Product code or customer-specific information

Y

Year code (last digit of calendar year)

YY

Year code (last 2 digits of calendar year)

WW

Week code (week of January 1 is week '01')

NNN

Alphanumeric traceability code

Pb-free JEDEC® designator for Matte Tin (Sn)

This package is Pb-free. The Pb-free JEDEC designator (Pb-free)

Pin one index is identified by a dot, delta up, or delta down (triangle mark).

Note:

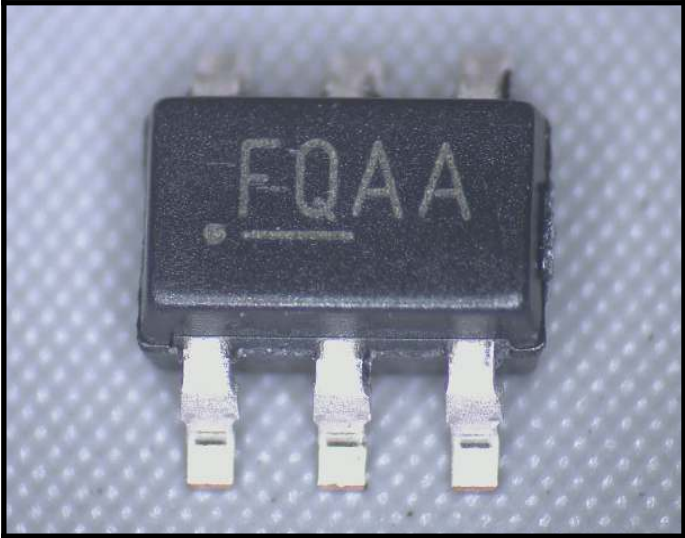
In the event the full Microchip part number cannot be marked on one line, it will be carried over to the next line, thus limiting the number of available characters for customer-specific information. Package may or may not include the corporate logo.

Underbar () and/or Overbar () symbol may not be to scale.

Note:

If the full seven-character YYWWNNN code cannot fit on the package, the following truncated codes are used based on the available marking space:

6 Characters = YYWWNNN; 5 Characters = WWNNN; 4 Characters = WNNN; 3 Characters = NNN; 2 Characters = NN; 1 Character = N

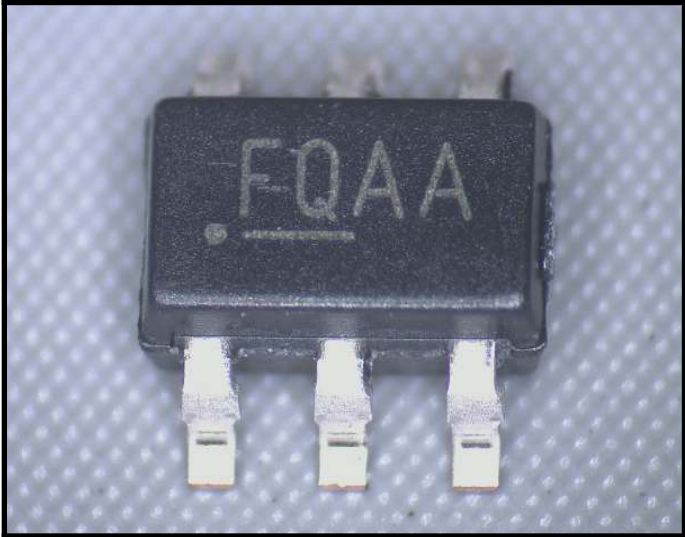


Marking (top-side)

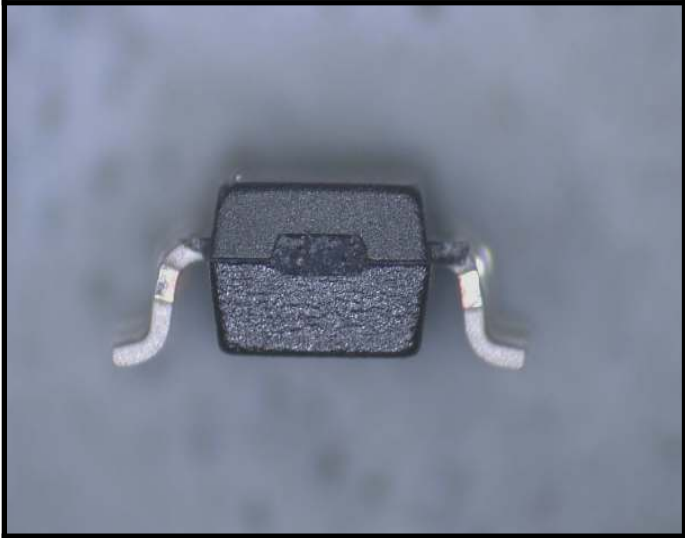
Marking Marking code

Full Part No.	Marking	Current Limit	Kickstart	Package	Media Type
MIC2005A					
MIC2005A-1YM5-TR	EA51	0.5A	No	5-Lead SOT-23	3,000/Reel
MIC2005A-2YM5-TR	EA52	0.5A			
MIC2005A-1YM6-TR	EA53	0.5A			
MIC2005A-2YM6-TR	EA54	0.5A			
MIC2005L					
MIC2005-0.5LYM5	SLFF	0.5A	No	5-Lead SOT-23	3,000/Reel
MIC2005-0.8LYM5	SLFF	0.6A			
MIC2005-1.2LYM5	SLFF	1.2A			
MIC2006/MIC2016					
MIC2006-0.5YM6-TR	EG05	0.5A	No	6-Lead SOT-23	3,000/Reel
MIC2006-0.8YM6-TR	EG05	0.8A			
MIC2006-1.2YM6-TR	EG12	1.2A			
MIC2006-0.5YML-TR	G05	0.5A			
MIC2006-0.8YML-TR	G05	0.8A	Yes	6-Lead 2 mm x 2 mm DFN	5,000/Reel
MIC2006-1.2YML-TR	G12	1.2A			
MIC2016-0.5YM6-TR	EP05	0.5A			
MIC2016-0.8YM6-TR	EP05	0.8A			
MIC2016-1.2YM6-TR	EP12	1.2A			
MIC2016-0.5YML-TR	P05	0.5A	Yes	6-Lead SOT-23	3,000/Reel
MIC2016-0.8YML-TR	P05	0.8A			
MIC2016-1.2YML-TR	P12	1.2A			
MIC2007/MIC2017					
MIC2007YM6-TR	EHAA	0.2A - 2.0A	No	6-Lead SOT-23	3,000/Reel
MIC2007YML-TR	HAA		Yes	6-Lead 2 mm x 2 mm DFN	5,000/Reel
MIC2017YM6-TR	EQAA			6-Lead SOT-23	3,000/Reel
MIC2017YML-TR	QAA			6-Lead 2 mm x 2 mm DFN	5,000/Reel
MIC2008/MIC2018					
MIC2008YM6-TR	EJAA	0.2A - 2.0A	No	6-Lead SOT-23	3,000/Reel
MIC2008YML-TR	JAA		Yes	6-Lead 2 mm x 2 mm DFN	5,000/Reel
MIC2018YM6-TR	EQAA			6-Lead SOT-23	3,000/Reel
MIC2018YML-TR	RAA			6-Lead 2 mm x 2 mm DFN	5,000/Reel
MIC2009/MIC2019					
MIC2009YM6-TR	EKAA	0.2A - 2.0A	No	6-Lead SOT-23	3,000/Reel
MIC2009YML-TR	KAA		Yes	6-Lead 2 mm x 2 mm DFN	5,000/Reel
MIC2019YM6-TR	EQAA			6-Lead SOT-23	3,000/Reel
MIC2019YML-TR	SAA			6-Lead 2 mm x 2 mm DFN	5,000/Reel

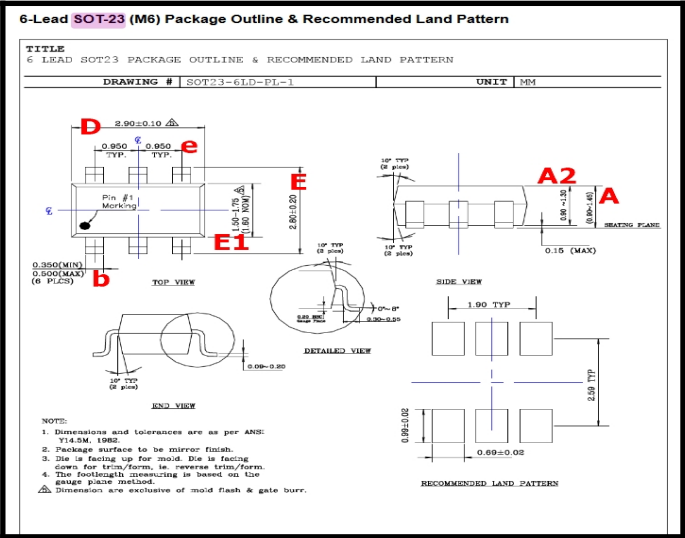
Ordering Information	
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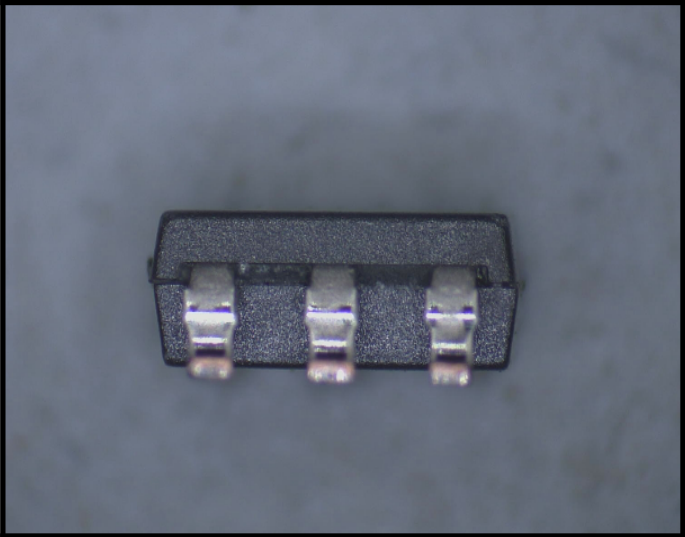
Mechanical Dimensions	Part as shown on POD
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Mechanical Dimensions	Part as shown on POD
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Mechanical Dimensions	Package Outline Drawing
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Mechanical Dimensions	Part as shown on POD
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Dimension Measurement	D=2.87 mm, (Pass)
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Dimension Measurement	E=2.88mm, (Pass)
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Dimension Measurement	E1=1.60 mm, (Pass)
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Dimension Measurement	A=1.16 mm, (Pass)
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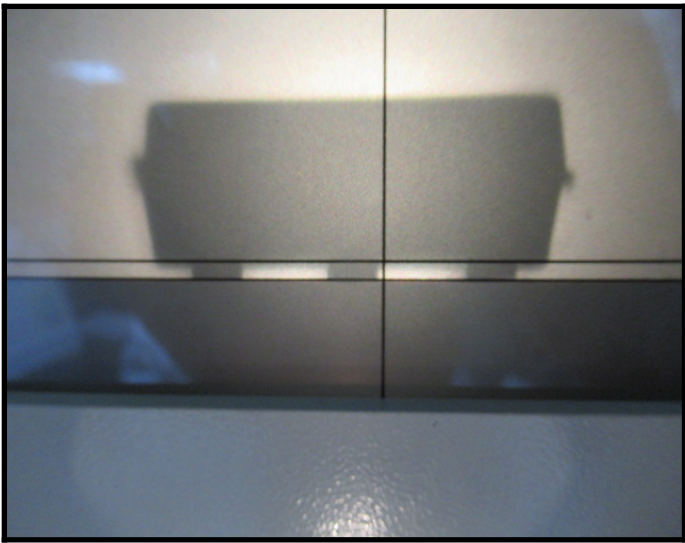
Dimension Measurement	A2=1.08 mm, (Pass)
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Dimension Measurement	b=0.35 mm, (Pass)
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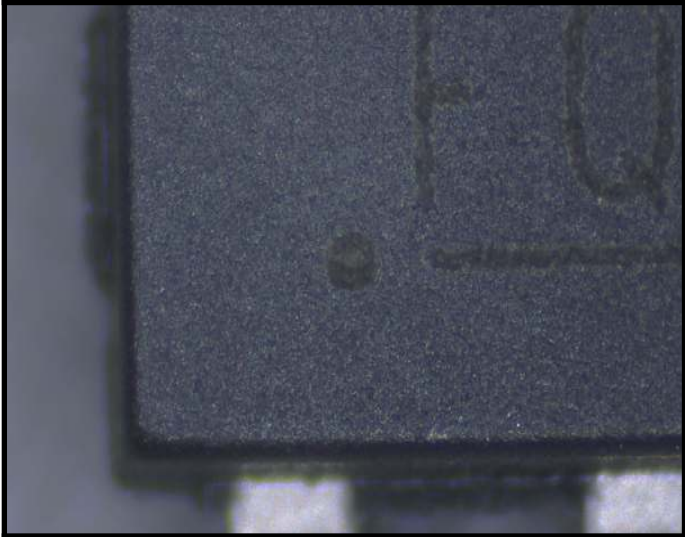
Dimension Measurement	e=0.95 mm
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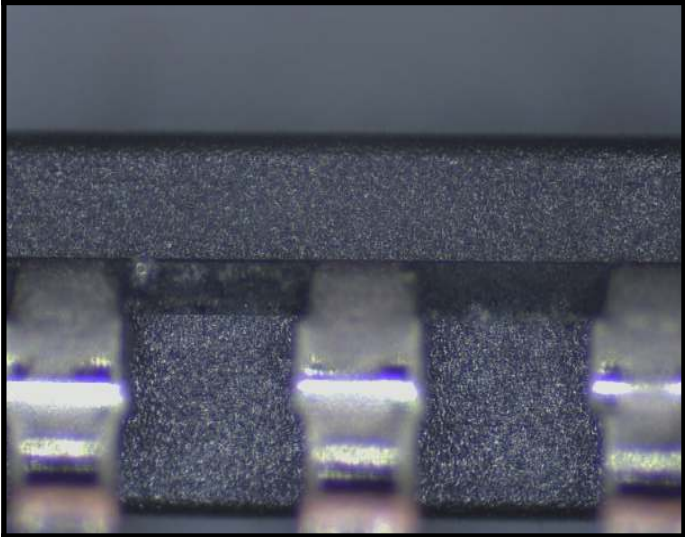
Dimension Measurement	Coplanarity Pass, 13pcs
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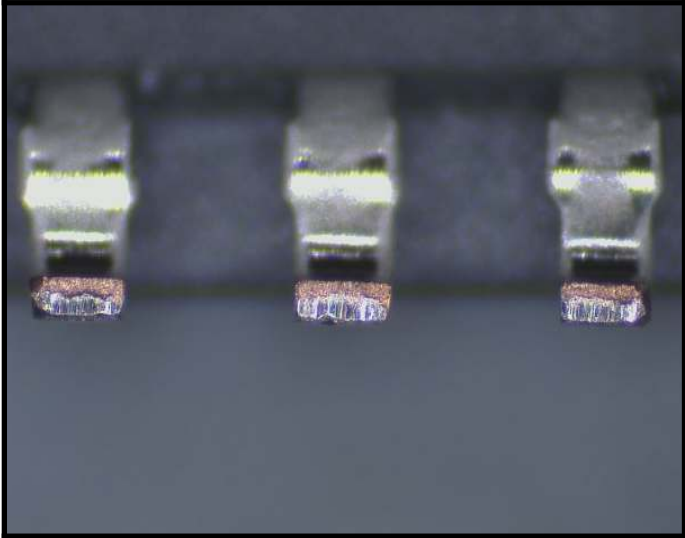
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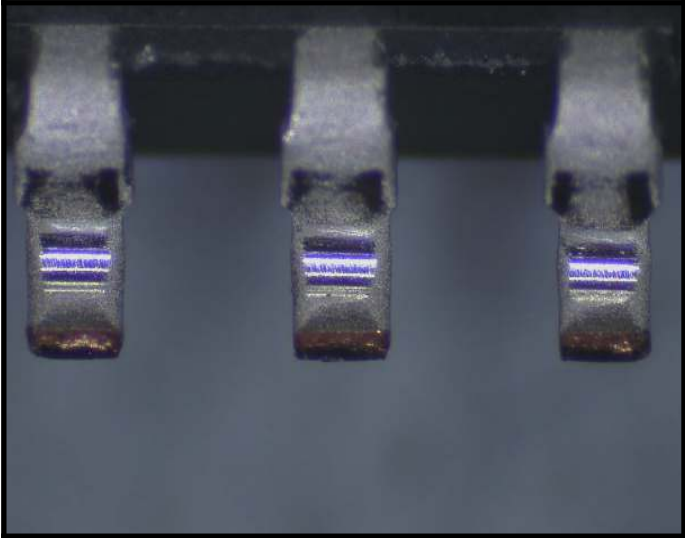
Body (top-side)	Pin 1 indicator
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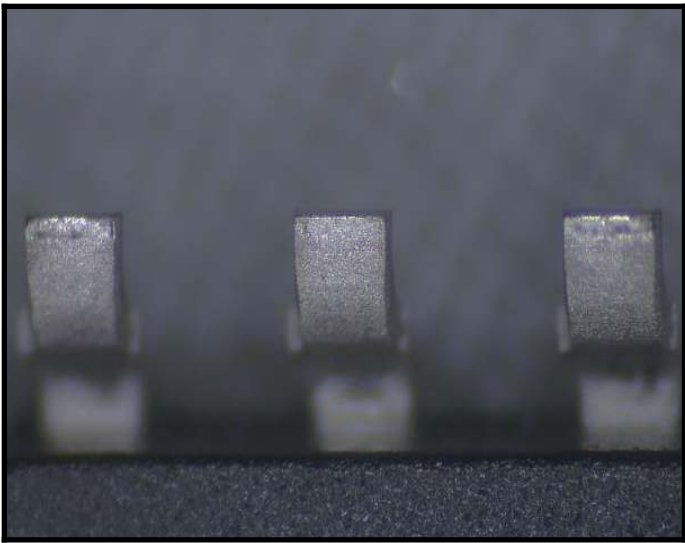
Body (side view)	
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Terminal	Exposed base metal from trimming
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Terminal	Stress marks from forming
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Terminal	
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Packaging (Box)	Box as received
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Packaging (Box)	Open box
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Packaging (Carrier)	ESD bag
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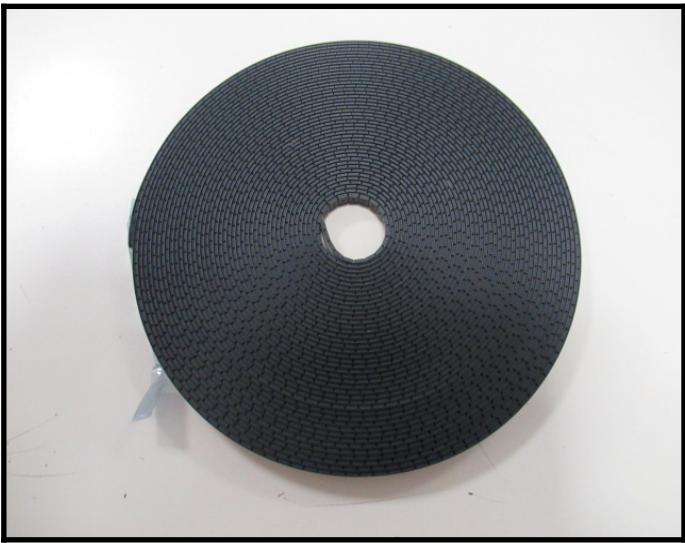


Packaging (Carrier)	ESD bag
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Packaging (Carrier)	Bag label
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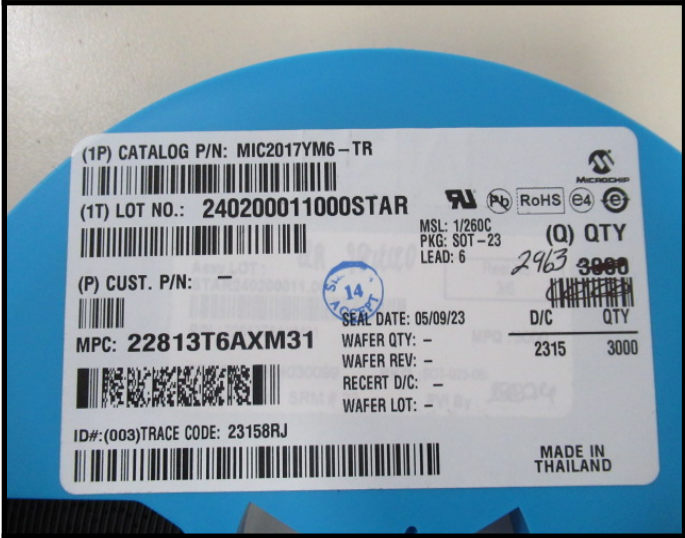
Packaging (Carrier)	Cut tape
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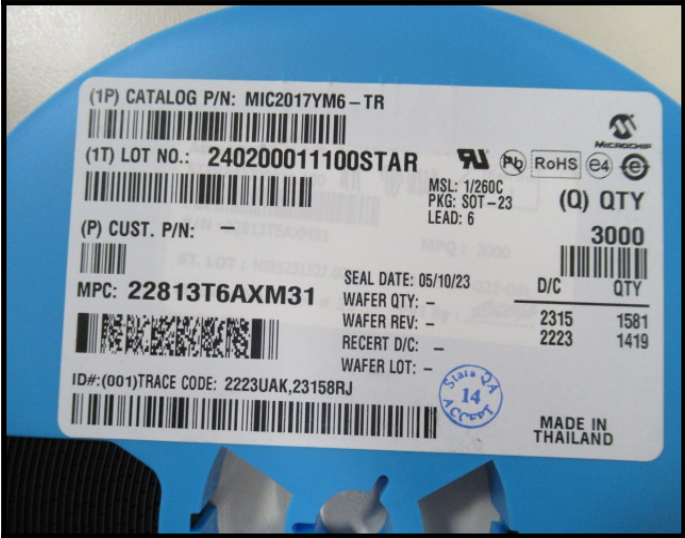
Packaging (Carrier)	ESD bag
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Packaging (Carrier)	Reel
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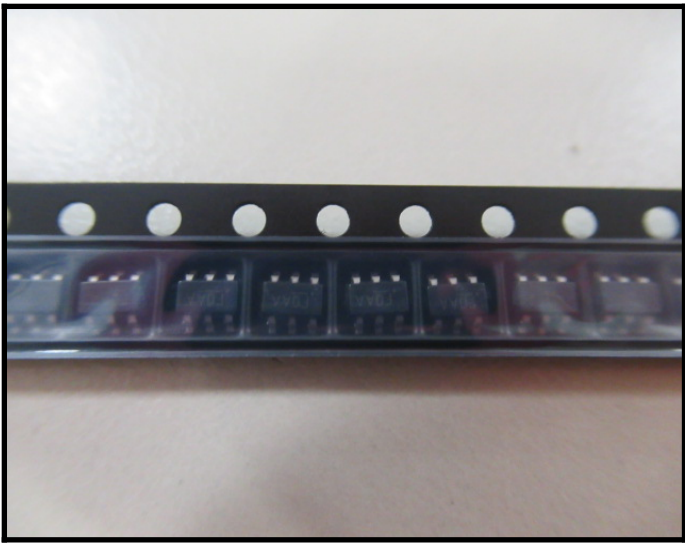
Packaging (Carrier)	Reel label
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Packaging (Carrier)	Reel label
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Packaging (Carrier)	Parts aligned in tape
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Definitions (as defined within AS6081)

- KNOWN AUTHENTIC PART (Golden Sample) –A part which has either been purchased directly from the manufacturer, their authorized distributors, or authenticated by the manufacturer with supporting documentation.
- UNUSED – Electronic parts that have not been previously used (i.e., attached to a board or powered up since leaving the supply chain). Unused material can contain mixed date codes, lot codes, or countries of origin, and should be received in original factory or third-party packaging. The material may have minor scratches or other physical defects as a result of handling, but the leads should be in good condition and should not be refurbished. The material should be guaranteed to meet the manufacturer's full specifications. Unused programmable parts should be received without having been previously programmed.
- USED (REFURBISHED OR PULLED) – Product that has been electrically charged and subsequently pulled or removed from a socket or other electronic application. Used product may be received in non-standard packaging, and may contain mixed lots, date codes, be from different facilities, etc. Parts may have physical defects such as scratches, slightly bent leads, test dots, faded markings, chemical residue or other signs of use, but the leads should be intact. Used product may be sold with a limited warranty, and programmable parts may still contain partial or complete programming which could impact the part's functionality.
- REFURBISHED – Parts that have been renovated to restore them to a "like new" condition, e.g., leaded parts may have had their leads realigned and re-tinned and subjected to cleaning agents and chemical processing.
- COUNTERFEIT PART –A fraudulent part that has been confirmed to be a copy, imitation, or substitute that has been represented, identified, or marked as genuine, and/or altered by a source without legal right.

Report Explanations:

- Result is either Acceptable, Unacceptable, or Suspect Counterfeit based upon the test methods conducted in the requested test plan and the acceptance criteria defined within AS6171A, section 3.7.1.
- "Risk Factor" is a calculation of the remaining risk of a device being counterfeit or substandard from the results of the processer conducted, and risk associated with not conducting some processes. Green codes are acceptable with minimal risk of counterfeit or being substandard quality. Yellow codes are potential problems that can be verified with additional testing or physical defects that can be removed. Red codes are unacceptable and either high risk of being counterfeit, fail electrical testing, physically unusable condition.
- Minor observations such as scratches and loose contamination from normal handling, packaging, storage and aging are defined and allowed within the JEDEC manufacturing standards. Images of minor observations are not included in the report but are on file and available upon request.
- "FAR" in the process summary on Page 2 means "Further Analysis Recommended". It is not always possible to reach a conclusion on a single process. When we recommend additional tests to verify an observation found in one process, or gaps in the requested test plan, we will identify those areas of risk as "FAR".
- Note that definitions are as defined within the AS6081 and AS6171 standard.
- Measurements of uncertainty are not included in the report. The reported measurements are valid and measurements of uncertainty are available on request.
- The decision rule for statement(s) of conformity is based on Binary Statement for Simple Acceptance Rule specified in Decision Rules Clause 4.2.1 in ILAC-G8:09/2019.

Notes and Disclaimers:

1. Product analysis results are applicable for the inspected samples only. White Horse Laboratories is not liable for the value of the product and any liability is limited to the value of the services provided.
2. "Reference samples" are previously tested and/or inspected product which are used for comparison purposes to the devices analyzed for this report. "Known-good samples" are provided by the customer to compare to unverified product. "Golden samples" are acquired by WHL with direct traceability to the original manufacturer.
3. All source and measurement equipment are calibrated and suitable for the processes conducted with calibration certifications available upon request.
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6. All conducted methods are established, and test plan approved, by the customer.