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RoHS Lab Analysis Report and Certification

Product Description: **TVS Diode 1K SMB Suf MT T&R**
Product Number: **1KSMB47CA**

This document hereby certifies that the aforementioned product and all its associated materials, are in compliance with RoHS Directive 2011/65/EU of the European Parliament and of the Council on the restriction of the use of certain hazardous substances in electrical and electronic equipment.

Furthermore, it is hereby reported that the aforementioned product is composed of the following materials wherein valid Eu RoHS exemptions may be indicated as applicable.

Table 1. Product material composition and applicable RoHS exemption(s)

ICP ID	Raw Material Part Number	Raw Material Description	Applicable RoHS Exemption(s)
ICP-0027	Silicon+Nickel	Silicon Wafer w/ Ni plating	
ICP-0029	Propriety	Wafer Passivation	7c-I
ICP-0038	Copper	Lead Frame	
ICP-0377	Copper	Clip (Copper Metal)	
ICP-0050	F367SN10-90P4	Solder Paste (Gray Paste)	7a
ICP-0046	CK-2000A	Epoxy Molding Compound	
ICP-0040	Pure Matte Tin	Tin Plating (SMD)	

Remarks:
7a - Lead in high melting temperature type solders (lead-based alloys containing 85 % by weight or more lead)
7c-I - Electrical and electronic components containing lead in a glass or ceramic other than dielectric ceramic in capacitors (piezoelectronic devices) or in a glass or ceramic matrix compound

To view the third party RoHS validation report of these materials, see download procedure below.

1. Open the FTP website on your windows explorer: ftp://pubftp.littelfuse.com/ICP_Test_Reports/
2. Retrieve the username and password thru your corresponding Sales / FAE or email envrequests@littelfuse.com
3. Find the corresponding ICP ID and download the corresponding ICP report.

Issued by:
Sharie Lyn S. Mantilla
Global EHS Engineer

Noted by:
Arsenio M. Cesista, Jr.
Global EHS Manager

For questions and clarifications, you may send an email to envrequests@littelfuse.com

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RoHS Lab Analysis Report and Certification

HF
Halogen Free

Product Description: **TVS Diode 1K SMB Suf MT T&R**
Product Number: **1KSMB30CA**

This document hereby certifies that the aforementioned product and all its associated materials, are in compliance with RoHS Directive 2011/65/EU of the European Parliament and of the Council on the restriction of the use of certain hazardous substances in electrical and electronic equipment.

Furthermore, it is hereby reported that the aforementioned product is composed of the following materials wherein valid Eu RoHS exemptions may be indicated as applicable.

Table 1. Product material composition and applicable RoHS exemption(s)

ICP ID	Raw Material Part Number	Raw Material Description	Applicable RoHS Exemption(s)
ICP-0027	IC Wafer	Silicon Chip	
ICP-0029	Propriety	Wafer Passivation	7c-I
ICP-0038	Copper	Lead Frame	
ICP-0377	Copper	Clip (Copper Metal)	
ICP-0050	F367SN10-90P4	Solder Paste (Gray Paste)	7a
ICP-0046	CK-2000A	Epoxy Molding Compound	
ICP-0040	Pure Matte Tin	Tin Plating (SMD)	

Remarks: 7a - Lead in high melting temperature type solders (lead-based alloys containing 85 % by weight or more lead)
7c-I - Electrical and electronic components containing lead in a glass or ceramic other than dielectric ceramic in capacitors (piezoelectronic devices) or in a glass or ceramic matrix compound

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RoHS Lab Analysis Report and Certification

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Product Description: **TVS Diode 1K SMB Suf MT T&R**
Product Number: **1KSMB56CA**

This document hereby certifies that the aforementioned product and all its associated materials, are in compliance with RoHS Directive 2011/65/EU of the European Parliament and of the Council on the restriction of the use of certain hazardous substances in electrical and electronic equipment.

Furthermore, it is hereby reported that the aforementioned product is composed of the following materials wherein valid Eu RoHS exemptions may be indicated as applicable.

Table 1. Product material composition and applicable RoHS exemption(s)

ICP ID	Raw Material Part Number	Raw Material Description	Applicable RoHS Exemption(s)
ICP-0027	Silicon+Nickel	Silicon Wafer with Nickel Plating	
ICP-0029	Propriety	Wafer Passivation	7c-I
ICP-0038	Copper	Lead Frame	
ICP-0377	Copper	Clip	
ICP-0050	F367SN10-86D4	Solder Paste	7a
ICP-0046	CK-2000C	Epoxy Molding Compound	
ICP-0040	Pure Matte Tin	Tin Plating (SMD)	

Remarks:
7a - Lead in high melting temperature type solders (lead-based alloys containing 85 % by weight or more lead)
7c-I - Electrical and electronic components containing lead in a glass or ceramic other than dielectric ceramic in capacitors (piezoelectronic devices) or in a glass or ceramic matrix compound

To view the third party RoHS validation report of these materials, see download procedure below.

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RoHS Lab Analysis Report and Certification

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Product Description: **TVS Diode 1K SMB Suf MT T&R**
Product Number: **1KSMB18CA-DH**

This document hereby certifies that the aforementioned product and all its associated materials, are in compliance with RoHS Directive 2011/65/EU of the European Parliament and of the Council on the restriction of the use of certain hazardous substances in electrical and electronic equipment.

Furthermore, it is hereby reported that the aforementioned product is composed of the following materials wherein valid Eu RoHS exemptions may be indicated as applicable.

Table 1. Product material composition and applicable RoHS exemption(s)

ICP ID	Raw Material Part Number	Raw Material Description	Applicable RoHS Exemption(s)
ICP-0027	IC Wafer	Silicon Chip	
ICP-0029	Propriety	Wafer Passivation	7c-I
ICP-0038	Copper	Lead Frame	
ICP-0377	Copper	Clip	
ICP-0050	F367SN10-86D4	Solder Paste	7a
ICP-0046	CK-2000C	Epoxy Molding Compound	
ICP-0040	Pure Matte Tin	Tin Plating (SMD)	

Remarks:
7a - Lead in high melting temperature type solders (lead-based alloys containing 85 % by weight or more lead)
7c-I - Electrical and electronic components containing lead in a glass or ceramic other than dielectric ceramic in capacitors (piezoelectronic devices) or in a glass or ceramic matrix compound

To view the third party RoHS validation report of these materials, see download procedure below.

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RoHS Lab Analysis Report and Certification

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Product Description: **TVS Diode 1K SMB Suf MT T&R**
Product Number: **1KSMB68A**

This document hereby certifies that the aforementioned product and all its associated materials, are in compliance with RoHS Directive 2011/65/EU of the European Parliament and of the Council on the restriction of the use of certain hazardous substances in electrical and electronic equipment.

Furthermore, it is hereby reported that the aforementioned product is composed of the following materials wherein valid Eu RoHS exemptions may be indicated as applicable.

Table 1. Product material composition and applicable RoHS exemption(s)

ICP ID	Raw Material Part Number	Raw Material Description	Applicable RoHS Exemption(s)
ICP-0027	IC Wafer	Silicon Chip	
ICP-0029	Propriety	Wafer Passivation	7c-I
ICP-0038	Copper	Lead Frame	
ICP-0377	Copper	Clip	
ICP-0050	F367SN10-86D4	Solder Paste	7a
ICP-0046	CK-2000C	Epoxy Molding Compound	
ICP-0040	Pure Matte Tin	Tin Plating (SMD)	

Remarks: 7a - Lead in high melting temperature type solders (lead-based alloys containing 85 % by weight or more lead)
7c-I - Electrical and electronic components containing lead in a glass or ceramic other than dielectric ceramic in capacitors (piezoelectronic devices) or in a glass or ceramic matrix compound

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