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SPECIFICATION FOR APPROVAL

CUSTOMER	Blume-Mueller
CERTIFIED MODEL/TYPE	KMC5S010
PART NO.	KMC5S010RC(RoHS+HF)
APPLICATION	Meet AEC-Q200 qualification.
CUSTOMER P/N	
ISSUE DATE	Mar.14.2024
REV. NO.	
REV. DATE	

FOR CUSTOMER APPROVAL	CHECKED BY
	Haili Gong
	APPROVED BY
	Huaifang Zhang

REVISED RECORD SHEET

REV. NO	REV. DATE	REVISED CONTENT

INDEX

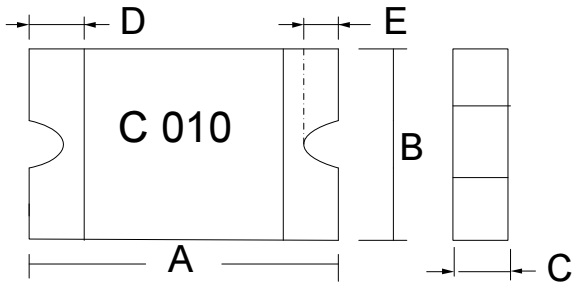
Part Number Code

Example :

K	**MC**	**5**	**S**	**010**	**R**	**C**
(1)	(2)	(3)	(4)	(5)	(6)	(7)

No.	Item	Digit	Specification
(1)	Product Type	K	Thinking Polymer PTC Resettable Fuse
(2)	Type Series	MC	SMD series
(3)	Size (EIA)	5	1812
(4)	Structure	S	S type
(5)	I hold	010	0.10A @ 23℃
(6)	Packaging	R	Taping & Reel
(7)	Optional Suffix	C	RoHS+HF compliance Automotive

Structure and Dimensions



(unit : mm)

Item	A	B	C	D	E
MIN.	4.37	3.07	0.70	0.20	0.15
MAX.	4.73	3.41	1.15	1.20	0.65

Electrical Characteristics (23℃)

Part No.	V max.	I max.	I hold @ 23℃	I trip @ 23℃	Pd (Max.)
	(V)	(A)	(A)	(A)	(W)
KMC5S010RC	30	100	0.100	0.300	0.80

Part No.	Max.time to trip		Resistance (Ω)		Operating /storage temperature
			Initial (Ri)	Post trip (R1)	
	(A)	(Sec.)	min.	max.	(℃)
KMC5S010RC	0.5	1.50	1.6	15.0	-40 ~ +85

Ihold=Hold current :maximum current device will pass without interruption at 23℃ still air unless otherwise specified.

Itrip=Trip current :minimum current that will switch the device from low resistance to high resistance at 23℃ still air unless otherwise specified.

Vmax=Maximum voltage device can withstand without damage at rated current.

Imax=Maximum current device can withstand without damage at rated voltage .

Pd=Power dissipated from device while the tripped state at 23℃ still air unless otherwise specified.

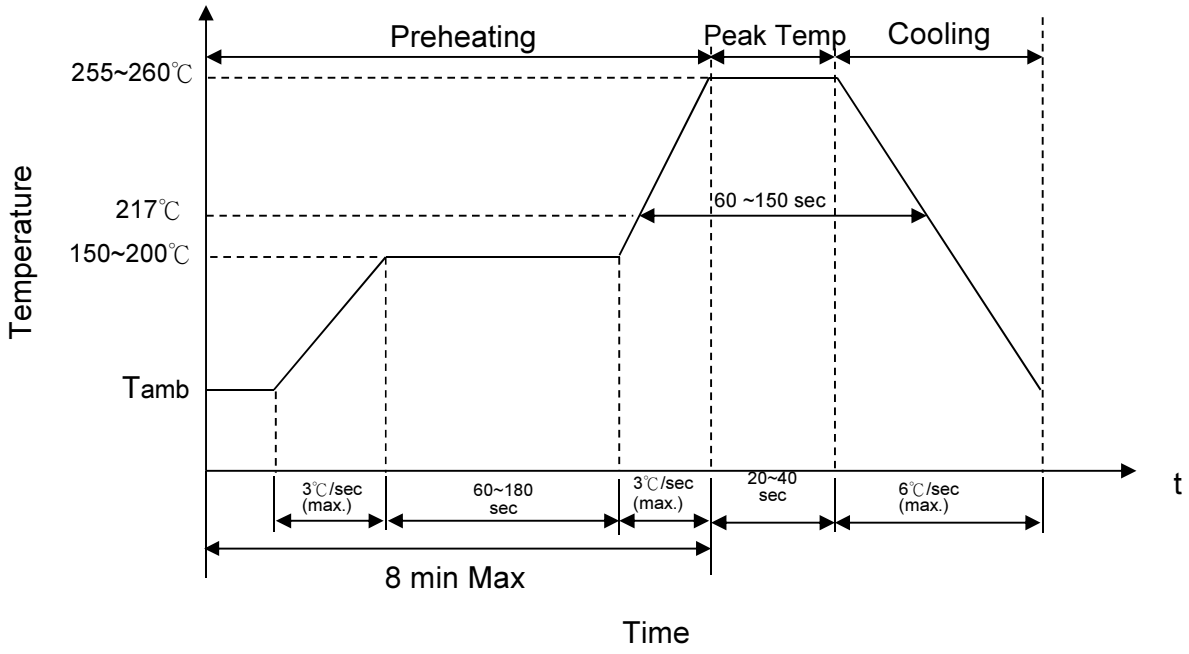
Rimin=Minimum resistance of device prior to tripping at 23℃ .

R1max=Maximum resistance of the device one hour after tripping at 23℃ .

Caution:Operation beyond the specified rating or improper use may result in damage and possible arcing and flame.

Soldering Recommendation

■ IR-Reflow Soldering Profile



The welding method of the product is reflow welding, wave soldering is not recommended

* Recommended reflow methods: IR, Vapor phase, hot air oven.
* Devices can be cleaned using standard industry methods and solvents.

Notes:

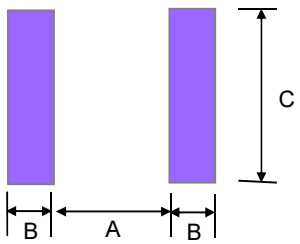
If reflow temperatures exceed the recommended profile,devices may not meet the performance requirements.

Devices are not designed to be wave soldered to the bottom side of the board.

■ Recommended Reworking Conditions with Soldering Iron

Item	Conditions
Temperature of Soldering Iron-tip	360 ℃(max.)
Soldering Time	3 sec (max.)
Diameter of Soldering Iron-tip	ϕ 3 mm (max.)

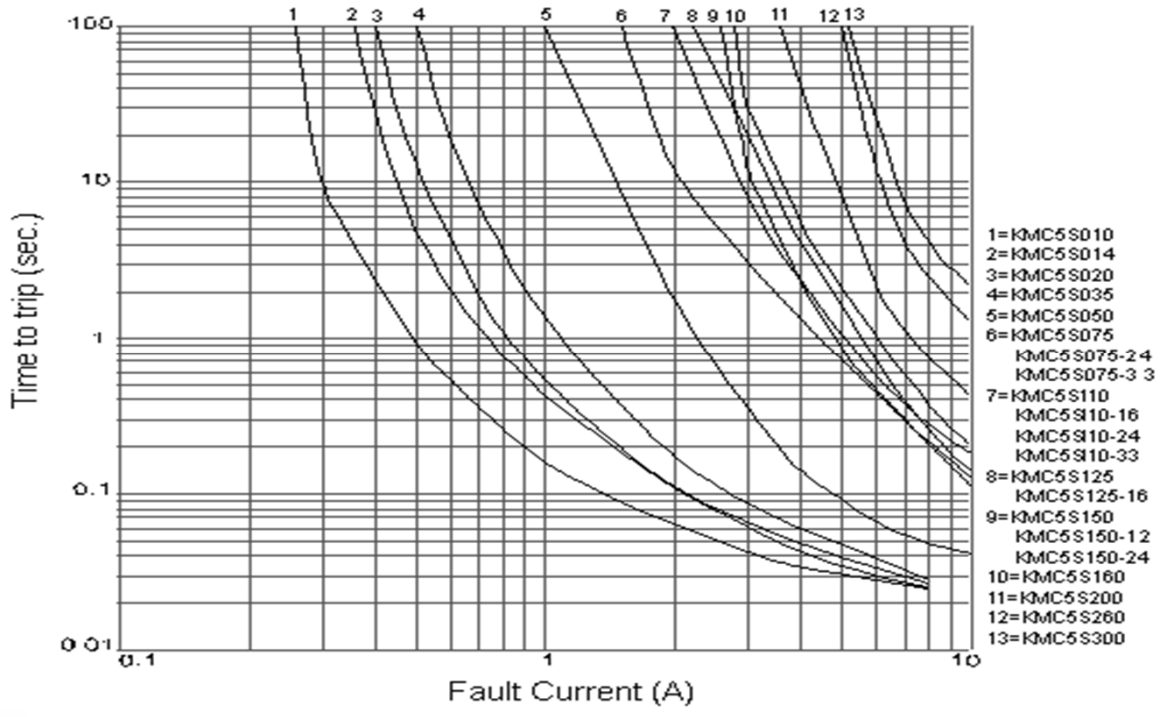
■ Recommended Soldering Pad Dimensions (Nominal)



(Unit：mm)

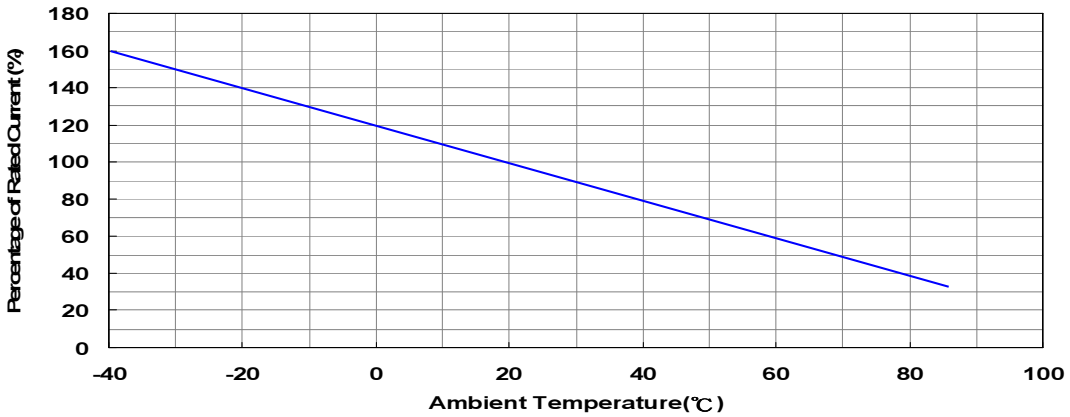
SIZE	A	B	C
1812	3.45	1.78	3.50

Typical Time- to-Trip Curves at 23 ℃



Thermal Derating Curve

Thermal derating curve for SMD1812 series



Model	Ambient Operation Temperature								
	-40℃	-20℃	0℃	23℃	40℃	50℃	60℃	70℃	85℃
KMC5S010	0.16	0.14	0.12	0.1	0.08	0.07	0.06	0.05	0.03

RoHS Compliant Declaration

We hereby declare that the components delivered to your company are compliant with RoHS directive 2015/863/EU.

Restriction of Weapon and Military End-Use

Thinking has established and implemented the fundamental policy on none of our product should be used or sold, through any channels, for use in the design, development, production, utilization, maintenance or operation of, or otherwise contribution to any weapons (Weapons of Mass Destruction [nuclear, chemical or biological weapons or missiles] or conventional weapons) or goods or systems specially designed or intended for military end-use or utilization by military end-users.

Warehouse Storage Conditions of Products

(I) Storage Conditions :

1.Storage Temperature : -10℃~+40℃

2.Relative Humidity : ≦75%RH

3.Keep away from corrosive atmosphere and sunlight.

(II) Period of Storage : 1 year

Safety Approvals **(Certified Model/Type : KMC5S010)**

* UL 1434 / cUL recognized (File # E138827)

* TUV recognized (File # R50143386)

Certificates

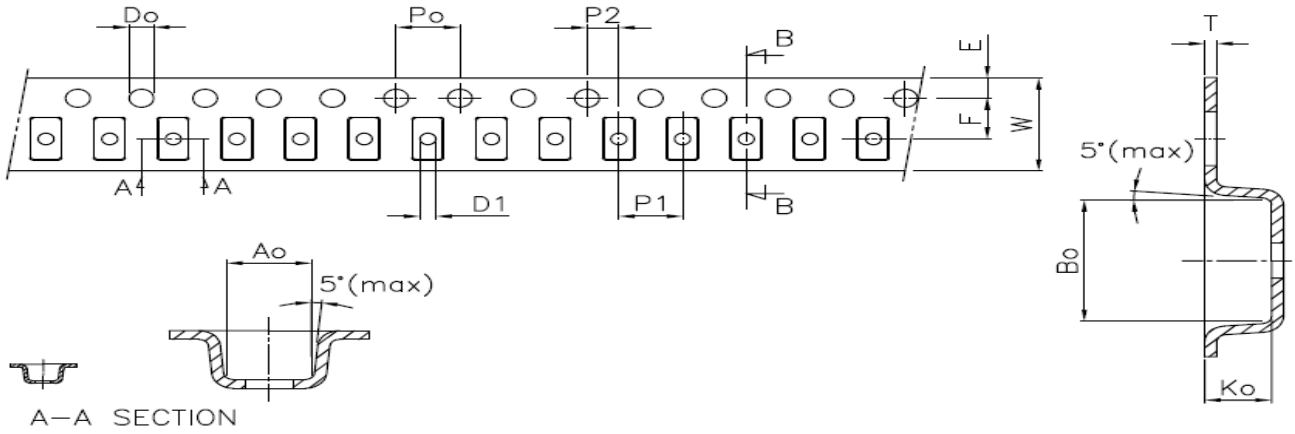
(1) IATF 16949 certificate
(2) ISO 9001 certificate

Test Report

(1) RoHS test report
(2) Halogen-free test report

Packaging

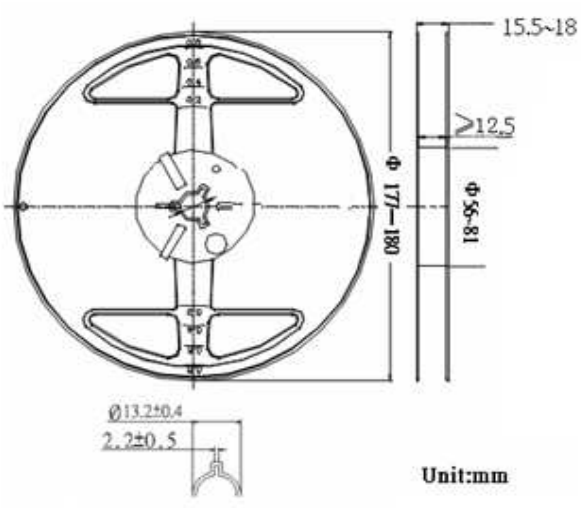
■ Taping specification (1812 type)



Unit : mm

Index / Type	A_0 ±0.1	B_0 ±0.1	K_0 ±0.05	P_0 ±0.1	P_1 ±0.1	P_2 ±0.1	T ±0.05	E ±0.1	F ±0.1	D_0 ±0.05	D_1 min	W ±0.3	$10P_0$ ±0.2
1812	3.56	4.94	1.70	4.00	8.00	2.00	0.25	1.75	5.50	1.55	1.50	12.00	40.00

■ Quantity (1000 pcs / reel)



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