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## SPECIFICATION FOR APPROVAL

CUSTOMER	立創電子
CERTIFIED MODEL/TYPE	KRL1200050
PART NO.	KRL1200050SBY (RoHS+HF)
APPLICATION	
CUSTOMER P/N	
ISSUE DATE	Jul.06.2022
REV. NO.	
REV. DATE	

FOR CUSTOMER APPROVAL	CHECKED BY
	<i>Haili Gong</i>
	APPROVED BY
	<i>Huaifang Zhang</i>





**REVISED RECORD SHEET**

REV. NO	REV. DATE	REVISED CONTENT



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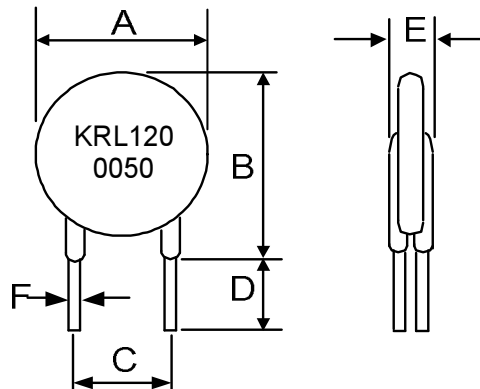
Part Number Code

Example :

**K**      **R**      **L**      **120**      **0050**      **S**      **B**      **Y**  
(1)      (2)      (3)      (4)      (5)      (6)      (7)      (8)

No.	Item	Digit	Specification
(1)	Product Type	K	Thinking Polymer PTC Resettable Fuse
(2)	Form Factor	R	Radial Series
(3)	Usage	L	Line-Voltage
(4)	Vmax. Operation	120	120 V
(5)	I hold	0050	0.50A @ 23°C
(6)	Shape of Lead	S	Straight lead
(7)	Packaging	B	Bulk
(8)	Optional Suffix	Y	RoHS+HF compliance

### Structure and Dimensions



( unit : mm )

A	B	C	D	E	F typ.
7.7~9.0	7.6~12.3	5±0.8	7.6~11.6	2.6~3.8	0.6±0.02

### Electrical Characteristics (23 °C)

Part No.	V max.	I max.	I hold @ 23°C	I trip @ 23°C	Pd (typ.)
	(V)	(A)	(A)	(A)	(W)
KRL1200050SBY	120	3	0.50	1.00	1.56

Part No.	Max.time to trip		Resistance (Ω)		Operating / storage temperature
			Initial (Ri)	Post trip (R1)	
	(A)	(Sec.)	min.	max.	(°C)
KRL1200050SBY	2.50	6.0	0.5	1.2	-40 ~ +85

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

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

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

Rimax=Maximum resistance of device prior to tripping at 23°C .

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

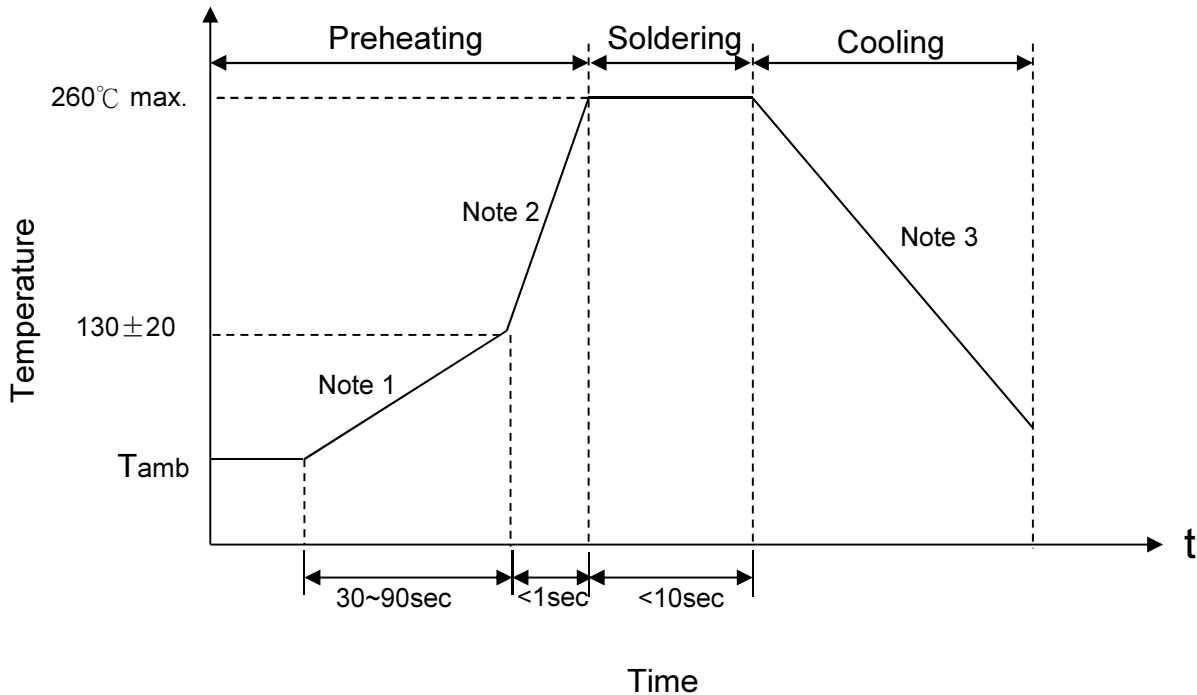
**Caution:Operation beyond the specified rating or improper use may result in damage and possible arcing and flame.**

Reliability

Item	Standard	Test conditions/Methods	Specifications
Passive Aging	IEC60738-1	85±5°C, 1000±24hrs	±5% typical resistance change
Humidity Aging	IEC60068-2-78	85±5°C, 80~85%RH, 1000±5hrs	±5% typical resistance change
Rapid Change of Temperature	IEC60738-1	85±5/-40±5°C, 10 cycles, Duration:30min	±5% typical resistance change
Overload Endurance	UL 1434	V <sub>max</sub> , 120% I <sub>max</sub> ,50 cycles + V <sub>max</sub> , 300% I <sub>trip</sub> ,6000 cycles	No arcing or burning
Aging	UL 1434	V <sub>max</sub> , I <sub>trip</sub> ≤ I ≤ I <sub>max</sub> , 1000±24hrs	No arcing or burning
Resistance to Soldering Heat	IEC60068-2-58	260 ± 5 °C , 10 ± 1 sec	R <sub>f</sub> < R <sub>1max</sub> No visible damage

## Soldering Recommendation

### Wave Soldering Profile



Note 1 : (1~3)°C/sec

Note 2 : Approx. 200°C/sec

### Recommended Reworking Conditions with Soldering Iron

Item	Conditions
Temperature of Soldering Iron-tip	360°C (max.)
Soldering Time	3 sec (max.)
Distance from Thermistor	2 mm (min.)

### RoHS Compliant Declaration

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

### Warehouse Storage Conditions of Products

(I) Storage Conditions :

- 1.Storage Temperature :  $-10^{\circ}\text{C} \sim +40^{\circ}\text{C}$
- 2.Relative Humidity :  $\leq 75\% \text{RH}$
- 3.Keep away from corrosive atmosphere and sunlight.

(II) Period of Storage : 1 year



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Safety Approvals (Certified Model/Type : KRL1200050)



\* UL 1434 / cUL recognized (File # E138827)



\* TUV recognized (File # R 50279312)

Certificates

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

Test Report

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

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