

Performance Specification

Model	Ihold	Itrip	Vmax	Imax	Pd	Maximum Time		Resistance		
						To Trip				
	(mA)	(mA)	(V)	(A)	Typ. (W)	Current(A)	Time (Sec)	Rimin (Ω)	Rimax (Ω)	R1max (Ω)
JK250-020U	20	45	250	3	1.00	0.5	0.4	50	160	240
JK250-030U	30	65	250	3	1.00	0.5	0.5	40	120	180
JK250-040U	40	80	250	3	1.00	0.5	1.0	30	60	100
JK250-050U	50	100	250	3	1.00	0.5	2.0	20	50	95
JK250-060U	60	120	250	3	1.00	0.5	0.5	20	60	90
JK250-080U	80	160	250	3	1.00	1.00	0.4	12	22	33
JK250-090U	90	180	250	3	1.00	1.00	0.5	10	20	31
JK250-100U	100	200	250	3	1.00	1.00	1.0	10	12	20
JK250-110U	110	220	250	3	1.00	1.00	1.2	6.0	12	16
JK250-120U	120	240	250	3	1.00	1.00	1.2	6.0	12	16
JK250-145U	145	290	250	3	1.00	1.00	4	3.5	6.5	14
JK250-180T	180	650	250	3	1.80	1.00	1.5	1.0	2.2	4.0
JK250-180U	180	650	250	3	1.80	3.00	1.5	2.0	4.0	6.0
JK250-200U	200	400	250	5	2.40	3.00	5.0	3.0	6.0	9.0
JK250-400U	400	800	250	5	2.80	3.00	8.0	1.0	3.0	6.0
JK250-600U	600	1200	250	5	3.20	3.00	12.0	0.6	1.7	4.5
JK250-800U	800	1600	250	5	3.60	5.00	18.0	0.4	1.0	3.0
JK250-1000U	1000	2000	250	7	3.60	5.00	20.0	0.3	0.8	2.5
JK250-1200U	1200	2400	250	7	3.60	6.00	20.0	0.2	0.8	2.5
JK250-1500U	1500	3000	250	7	4.80	7.50	20.0	0.2	0.6	2.0
JK250-2000U	2000	4000	250	10	4.80	10.00	20.0	0.2	0.4	1.5

I_H=Hold current:Maximum current at which the device will not interrupt in 25°C still air.

I_T=Trip current:Minimum current at which the device from low resistance to high resistance in 25°C still air.

V_{max}=Maximum continuous voltage device can withstand without damage at rated current.

I_{max}=Maximum fault current device can withstand without damage at rated voltage.

Maximum Time-to-trip:Maximum time to trip at assigned current.

P_d=Typical power dissipation:Typical amount of power dissipated from the device when in 25°C still air environment.

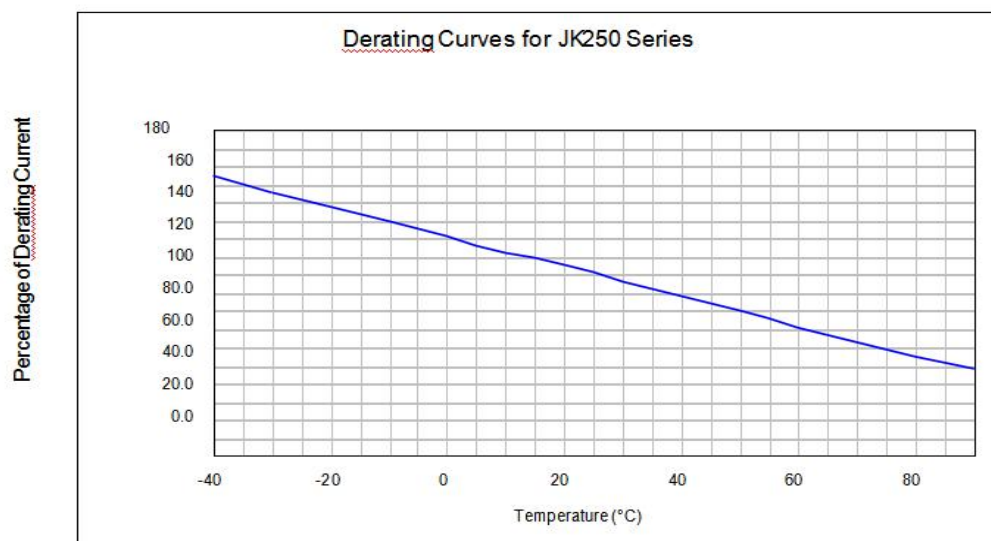
R_{min}=Minimum resistance of device at 25°C prior to tripping.

R_{max}=Maximum resistance of device at 25°C prior to tripping.

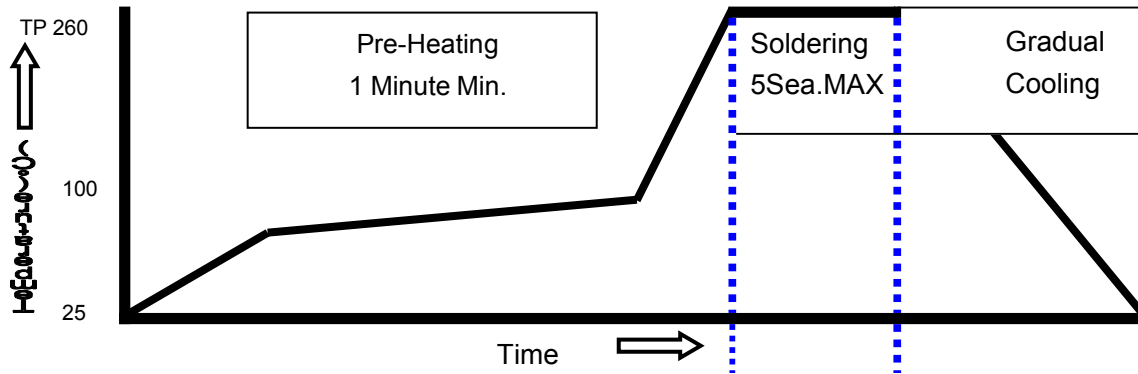
Environmental Specifications

Test	Conditions	Resistance change
Passive Aging	+85°C , 1000hours	$\leq R_{\max}$
Humidity Aging	+85°C , 85%R.H.1000hours	$\leq R_{\max}$
Thermal Shock	+125°C to -55°C , 10 Times	$\geq R_{\min}$
Solvent Resistance	MIL-STD-202, Method 215F	No change
Vibration	MIL-STD-202, Method 201	No change

Thermal Derating Curve



Soldering Parameters



WAVE SOLDERING INFORMATION

Pre-Heating Zone	Max. ramping rate should not exceed 4°C/Sec.
Soldering Zone	Max. solder temperature should not exceed 260°C
Cooling Zone	Cooling by natural convection in air.

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Physical Dimensions(mm.)

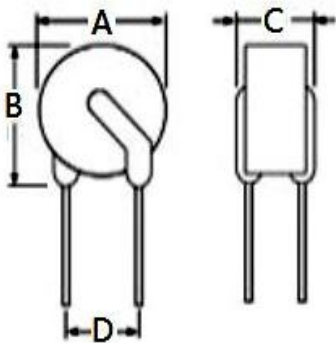


Fig.1

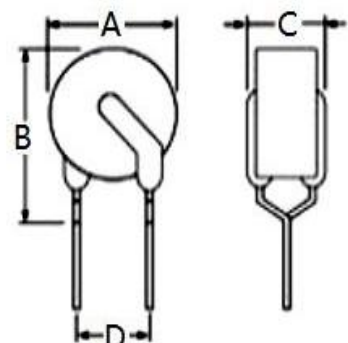


Fig.2

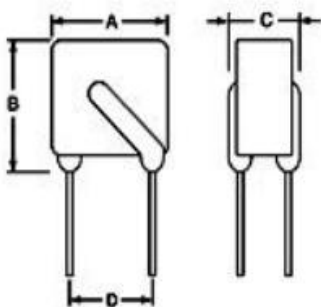


Fig.3

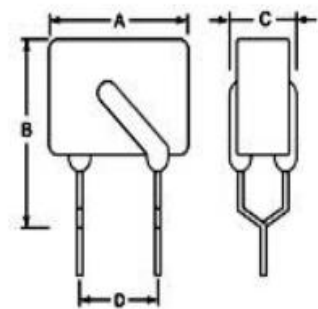


Fig.4

Unit : mm

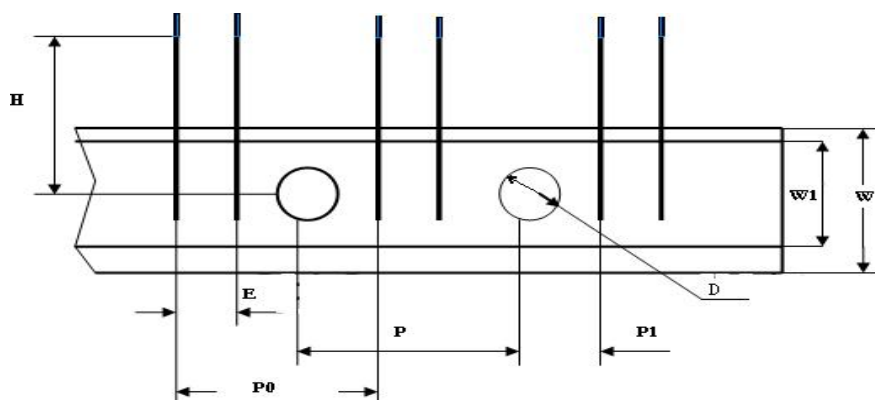
Model	Dimensions (mm)				Lead material	Shape
	A(max)	B(max)	C(max)	D(typ)	Tinned metal(mm)	Fig
JK250-020U	7.4	12.7	4.5	5.1	22AWG/Φ0.6	1
JK250-030U	7.4	12.7	4.5	5.1	22AWG/Φ0.6	1
JK250-040U	7.4	12.7	4.5	5.1	22AWG/Φ0.6	1/2
JK250-050U	7.4	12.7	4.5	5.1	22AWG/Φ0.6	1/2
JK250-060U	7.4	12.7	4.5	5.1	22AWG/Φ0.6	1/2
JK250-080U	7.4	12.7	4.5	5.1	22AWG/Φ0.6	2
JK250-090U	7.4	12.7	4.5	5.1	22AWG/Φ0.6	2
JK250-100U	7.8	12.6	4.5	5.1	22AWG/Φ0.6	1
JK250-110U	7.0	12.6	4.5	5.1	22AWG/Φ0.6	4
JK250-120U	7.0	12.6	4.5	5.1	22AWG/Φ0.6	4
JK250-145U	7.0	12.6	4.5	5.1	22AWG/Φ0.6	4
JK250-180T	10.2	14.5	3.8	5.1	22AWG/Φ0.6	2
JK250-180U	9.0	11.0	4.5	5.1	22AWG/Φ0.6	4
JK250-200U	12.0	17.0	4.5	5.1	22AWG/Φ0.6	3
JK250-400U	12.0	17.0	4.5	5.1	22AWG/Φ0.6	3
JK250-600U	16.0	18.0	4.5	5.1	22AWG/Φ0.6	3
JK250-800U	20.0	22.5	4.5	5.1	20 AWG/Φ0.8	3
JK250-1000U	20	22.5	4.5	5.1	20 AWG/Φ0.8	3
JK250-1200U	22	28	4.5	5.1	20 AWG/Φ0.8	3
JK250-1500U	25	30	4.5	5.1	20 AWG/Φ0.8	3
JK250-2000U	26	32	4.5	10.2	20 AWG/Φ0.8	3

Note: Dimensions in the A, B, C are the maximum sizes, all typical values of D is at the tolerance of $\pm 0.75\text{mm}$.

I hold Versus Temperature

Model	Maximum ambient operating temperature (°C)									
	-40°C	-20°C	0°C	25°C	30°C	40°C	50°C	60°C	70°C	85°C
JK250 series	148%	132%	117%	100%	91%	85%	77%	68%	61%	45%

Packaging Quantity



E	P	P0	P1	W1	w	H	D
5.0±0.5mm	12.7±1mm	12.7±1mm	3.85±0.7mm	12 (min)	18±1mm	16.5±1.0mm	4.0±0.5mm

JK250~020U~JK250-180U 1000Pcs/Bag

JK250-200U~JK250-600U 500 Pcs/Bag

JK250-800U~JK250-2000U 200 Pcs/Bag

Revised Record list

REV	Revised CONTENT	DATE
1.0	新修订规格书	2025-7-7

Warning:

The maximum ambient temperature shall not exceed 40°C. Storage temperature higher than 40°C could result in the deformation of packaging materials. The maximum relative humidity recommended for storage is 70%. High humidity with high temperature can accelerate the oxidation of the solder plating on the leads and reduce the solderability of the components. Sealed plastic bags with desiccant shall be used to reduce the oxidation of the leads and shall only be opened prior to use. The products shall not be stored in areas where harmful gases containing acid or alkali or other harmful substances are present.

最高环境温度不得超过40°C。若存储温度超过40°C，可能导致包装材料变形。建议的最高相对湿度为70%。高湿度和高温会加速引脚上的焊料氧化，降低组件的可焊性。应使用密封的塑料袋并加入干燥剂以减少引脚氧化，并且仅在使用前打开。产品不应存放在含有酸、碱或其他有害物质的有害气体环境中。

- Please read this specification before using the product.
 - Use PPTC beyond the maximum ratings or improper use may result in device damage, electrical arcing and flame.
 - PPTC are intended for protection against occasional over current or over temperature fault conditions and should not be used when repeated fault conditions or prolonged trip events are anticipated.
 - Device performance can be impacted negatively if devices are handled in a manner inconsistent with recommended electronic, thermal, and mechanical procedures for electronic components.
 - Use PPTC with a large inductance in circuit will generate a circuit voltage above the rated voltage of the PPTC.
 - Avoid impact PPTC device its thermal expansion like placed under pressure or installed in limited space.
 - Contamination of the PPTC material with certain silicon based oils or some aggressive solvents can adversely impact the performance of the devices. PPTC can be cleaned by standard methods.
- 使用产品前，请务必阅读本说明书。
 - 超过最大额定值使用PPTC或不当使用可能导致设备损坏、电弧和火焰。
 - PPTC主要用于保护设备免受偶尔的过电流或过温故障的影响，不应在预期会出现重复故障或长时间断开的情况下使用。
 - 如果设备未按照推荐的电子、热和机械处理程序进行操作，可能会对设备性能产生负面影响。
 - 在电路中与大电感器一起使用PPTC时，可能会导致电路电压超过PPTC的额定电压。
 - 避免将PPTC设备置于压力下或安装在有限空间内，以免其热膨胀。
 - 某些硅基油或强溶剂污染PPTC材料可能对其性能产生不利影响。

Notes:

The specification is intended to present application product and technical data to assist the user in selecting PPTC circuit production devices, However, users should independently evaluate and test the suitability of each product. jksemi makes no warranties as to the accuracy or completeness of the information and disclaims any liability resulting from its use, jksemi's only obligations are those in the jksemi Standard Terms and Conditions of Sale and in no case will jksemi be liable for any incidental, indirect, or consequential damages arising from the sale, resale, or misuse of its products. jksemi reserves the right to change or update any information contained in this specification without notice.

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