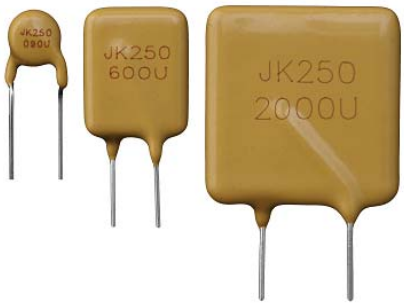
Polymer PTC Resettable Fuse JK250 Series

Features:

- ✧ Radial leaded Devices
- ✧ Cured,flame retardant epoxy polymer insulating material meets UL94V-0
- ✧ Bulk packaging,or tape and reel available on most models
- ✧ Agency recognition:UL、CSA、TUV
- ✧ ROHS compliant and lead-free



No.E217453

TÜVRheinland®
Precisely Right.
No. R 50158898

RoHS Compliant

Product Dimensions

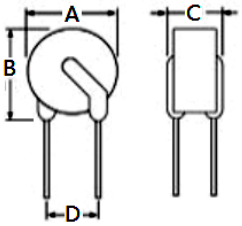


Fig.1

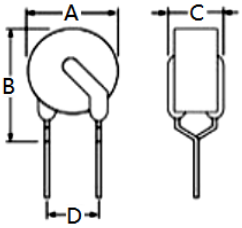


Fig.2

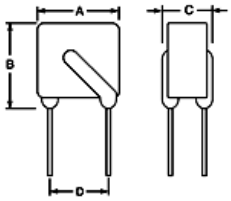


Fig.3

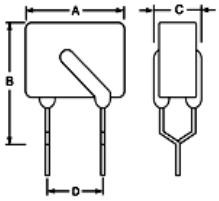


Fig.4

Unit ： mm

Model	Dimensions（mm）				Lead material	Shape
	A(max)	B(max)	C(max)	D(typ)	Tinned matel(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

Shenzhen Duomai Electronic Co.,Ltd.
TEL: +86-(0)755-21040994 FAX: +86-(0)755-21040994

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: ① Dimensions A, B, C are the maximum sizes, all typicl valuesof D is rhe l tolerance of ± 0.75mm.

Thermal Derating Chart-IH（A）

Model	Maximum ambient operating temperatures（℃）								
	-40℃	-20℃	0℃	25℃	40℃	50℃	60℃	70℃	85℃
JK250-020U	0.030	0.026	0.023	0.020	0.017	0.015	0.014	0.012	0.009
JK250-030U	0.044	0.040	0.035	0.030	0.026	0.023	0.020	0.018	0.014
JK250-040U	0.059	0.053	0.047	0.040	0.034	0.031	0.027	0.024	0.018
JK250-050U	0.074	0.066	0.059	0.050	0.043	0.039	0.034	0.031	0.023
JK250-060U	0.089	0.079	0.070	0.060	0.051	0.046	0.041	0.037	0.027
JK250-080U	0.118	0.106	0.094	0.080	0.068	0.062	0.054	0.049	0.036
JK250-090U	0.133	0.119	0.105	0.090	0.077	0.069	0.061	0.055	0.041
JK250-100U	0.148	0.132	0.117	0.100	0.085	0.077	0.068	0.061	0.045
JK250-110U	0.163	0.145	0.129	0.110	0.094	0.085	0.075	0.067	0.050
JK250-120U	0.178	0.158	0.140	0120	0.102	0.092	0.082	0.073	0.054
JK250-145U	0.215	0.191	0.170	0.145	0.123	0.112	0.099	0.088	0.065
JK250-180T	0.266	0.238	0.211	0.180	0.153	0.139	0.122	0.110	0.081
JK250-180U	0.266	0.238	0.211	0.180	0.153	0.139	0.122	0.110	0.081
JK250-200U	0.296	0.264	0.234	0.200	0.170	0.154	0.136	0.122	0.090
JK250-400U	0.592	0.528	0.468	0.400	0.340	0.308	0.272	0.244	0.180
JK250-600U	0.888	0.792	0.702	0.600	0.510	0.462	0.408	0.366	0.270
JK250-800U	1.184	1.056	0.936	0.800	0.680	0.616	0.544	0.488	0.360
JK250-1000U	1.480	1.320	1.170	1.000	0.850	0.770	0.680	0.610	0.450
JK250-1200U	1.776	1.584	1.404	1.200	1.020	0.924	0.816	0.732	0.540
JK250-1500U	2.220	1.980	1.755	1.500	1.275	1.155	1.020	0.915	0.675
JK250-2000U	2.960	2.640	2.340	2.000	1.700	1.540	1.360	1.220	0.900

Electrical Characteristic

Model	Ih（mA）	It(mA)	Vmax interrupt（V）	Imax（A）	P_d（W）	Maximum Time to Trip		Resistance(Ω)
						Current(A)	Time(S)	R_{min}- R_{max}
JK250-020U	20	45	250	3	1.0	0.5	0.5	80-160
JK250-030U	30	65	250	3	1.0	0.5	0.5	60-120
JK250-040U	40	80	250	3	1.0	0.5	1.5	30-60
JK250-050U	50	100	250	3	1.0	0.5	2	25-50
JK250-060U	60	120	250	3	1.0	0.5	2	20-60
JK250-080U	80	160	250	3	1.0	1	0.5	12-22
JK250-090U	90	180	250	3	1.0	1	0.8	10-20
JK250-100U	100	200	250	3	1.0	1	1	10-20
JK250-110U	110	220	250	3	1.0	1	2.0	6-12
JK250-120U	120	240	250	3	1.0	1	2.0	6-11
JK250-145U	145	290	250	3	1.0	1	5.0	3.5-6.5
JK250-180T	180	650	250	3	1.8	3	3.0	1.0-2.2
JK250-180U	180	650	250	3	1.8	3	1.5	2.0-4.0
JK250-200U	200	400	250	5	2.4	3	5	3-6
JK250-400U	400	800	250	5	2.8	3	8	1-3
JK250-600U	600	1200	250	5	3.2	3	12	0.6-2.0
JK250-800U	800	1600	250	5	3.6	4	18	0.4-1.0
JK250-1000U	1000	2000	250	7	3.6	5	20	0.3-0.8
JK250-1200U	1200	2400	250	7	3.6	6	20	0.2-0.8
JK250-1500U	1500	3000	250	7	4.8	7.5	20	0.2-0.6
JK250-2000U	2000	4000	250	10	4.8	10	20	0.2-0.4

I_h=Hold current:Maximum current at which the device will not interruptin 25℃ still air.

I_t=Trip current:Minimum current at which the device from low resistance to high resistance in 25℃ 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.

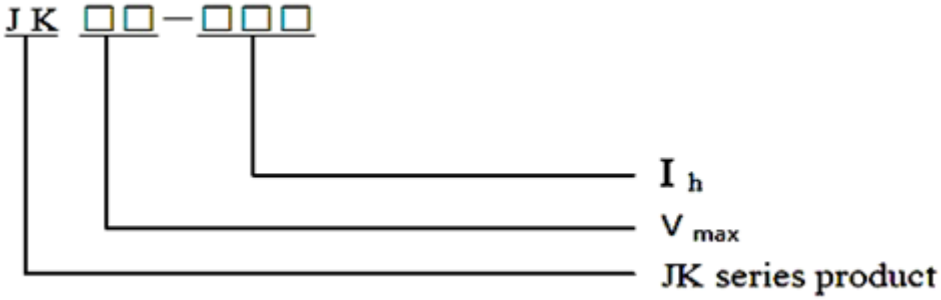
T_{trip}=Maximum time to trip(s) at assigned current.

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

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

Marking System

Shenzhen Duomai Electronic Co.,Ltd.
TEL: +86-(0)755-21040994 FAX: +86-(0)755-21040994



Environmental Specifications

Test	Conditions	Resistance change
Passive aging	+85℃，1000 hours	±8% typical
Humidity aging	+85℃，85%R.H.1000 hours	±8% typical
Thermal shock	+125℃ to -55℃，10 Times	±12% typical
SolventResistance	MIL-STD-202，Method 215F	No change
Vibration	MIL-STD-202，Method 201	No change

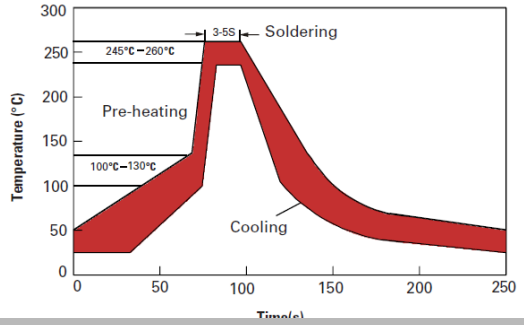
Soldering method

Wave Soldering

Soldering Temperature:260℃~270℃

Soldering Time:≤3sec.

Soldering Position: Resettable fuse wire and the bottom ≥ 6mm。



Manual soldering

Soldering Temperature:250℃~280℃

Soldering Time: ≤3sec.

Soldering Position: Resettable fuse wire and the bottom ≥ 6mm。

Packaging and Storage

Packaging quantity

JK250～020U～JK250-180U	1000Pcs/Bag
JK250-200U～JK250-600U	500 Pcs/Bag
JK250-800U～JK250-2000U	200 Pcs/Bag

Storage

The maximum ambient temperature shall not exceed 40℃.Storage temperature higher than 40℃ 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 substancesare present.

Warning:

Please read this specification before using the product.

Using of this product must be sure to follow the requirement of this specification,operation beyond the specified maximum ratings or improper use may result in damage and possible electrical arcing and flame.

PPTC resettable fuses are intended for occasional over-current protection. Application for repeated over-current condition or prolonged trip event are not anticipated.

Please avoid contact of PPTC resettable fuses with chemical solvent. Prolonged contact will impact the device performance.

You are requested not to use our product deviating from the agreed specifications.

Notes：

The specification is intended to present applicationproduct 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.Jinrui makes on warranties as to the accuracy or completeness of the information and disclaims any liability resulting from its use,Jinrui's only obligations are those in the Jinrui Standard Terms and Conditions of Sale and in no case will Jinrui be liable for any incidental,indirect,or consequential damages arising from the sale,resale,or misuse of its products. Jinrui reserves the right to change of update any information contained in this specificationwithout notice.