

Polymer PTC Resettable Fuse JK30 Series

Features:

- ✧ RoHS Compliant & Halogen Free
- ✧ Radial leaded Devices
- ✧ Cured, flame retardant epoxy polymer insulating material meets UL94V-0 requirements
- ✧ Operation Current: 0.5A~9A , Maximum Voltage: 30Vdc, Operating Temperature: -40°C TO 85°C
- ✧ Agency recognition: UL、TUV



Product Dimensions

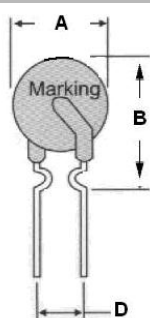


Fig.1

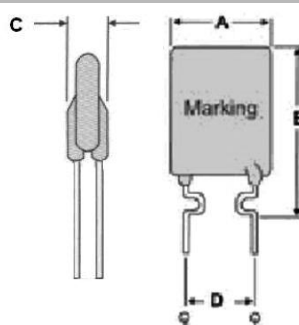


Fig.2

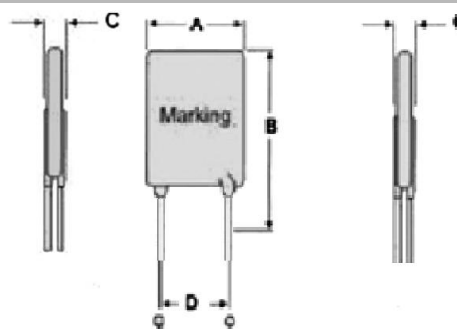


Fig.3

Unit : mm

JK30 Series

Model	Dimensions (mm)				Lead material	Shape
	A(max)	B(max)	C(max)	D(typ)	Tinned matel(mm)	Fig
JK30-050	7.4	12.7	3.0	5.1	24AWG/Φ0.5	1
JK30-075	7.4	13.0	3.0	5.1	24AWG/Φ0.5	1
JK30-090	7.4	18.5	3.0	5.1	24AWG/Φ0.5	2
JK30-110	7.4	18.5	3.0	5.1	24AWG/Φ0.5	2
JK30-120	7.4	18.5	3.0	5.1	24AWG/Φ0.5	2
JK30-135	9.2	17.6	3.0	5.1	24AWG/Φ0.5	2
JK30-160	9.2	20.2	3.0	5.1	24AWG/Φ0.5	2
JK30-185	9.2	20.2	3.0	5.1	24AWG/Φ0.5	2
JK30-200	15.2	20.2	3.0	5.1	24AWG/Φ0.5	2
JK30-250	13.2	22.4	3.0	5.1	24AWG/Φ0.5	2
JK30-300	13.2	20.4	3.0	5.1	20 AWG/Φ0.8	3

JK30-400	14.0	23.7	3.0	5.1	20 AWG/Φ0.8	3
JK30-500	14.0	23.7	3.0	10.2	20 AWG/Φ0.8	3
JK30-600	17.2	27.0	3.0	10.2	20 AWG/Φ0.8	3
JK30-700	17.2	27.0	3.0	10.2	20 AWG/Φ0.8	3
JK30-800	23.5	29.2	3.0	10.2	20 AWG/Φ0.8	3
JK30-900	23.5	29.2	3.0	10.2	20 AWG/Φ0.8	3

Note: ① Dimensions A, B, C is the maximum size, D values are typical tolerance of ± 0.50mm

Thermal Derating Chart-IH (A)

JK30 Series

Model	Maximum ambient operating temperatures (°C)									
	-40	-20	0	25	40	50	60	70	80	85
JK30-050	0.72	0.65	0.57	0.5	0.45	0.41	0.38	0.34	0.30	0.25
JK30-075	1.08	0.97	0.86	0.75	0.68	0.62	0.57	0.51	0.45	0.37
JK30-090	1.30	1.17	1.03	0.9	0.81	0.74	0.69	0.61	0.54	0.45
JK30-110	1.59	1.43	1.26	1.1	1.0	0.91	0.84	0.74	0.67	0.55
JK30-120	1.74	1.56	1.38	1.2	1.09	0.99	0.92	0.81	0.73	0.6
JK30-135	1.95	1.75	1.55	1.35	1.22	1.12	1.03	0.91	0.82	0.67
JK30-160	2.32	2.08	1.84	1.6	1.45	1.32	1.23	1.08	0.97	0.8
JK30-185	2.68	2.40	2.12	1.85	1.68	1.53	1.42	1.25	1.12	0.92
JK30-200	2.9	2.6	2.3	2	1.82	1.66	1.54	1.36	1.22	1
JK30-250	3.62	3.25	2.87	2.5	2.27	2.07	1.92	1.7	1.52	1.25
JK30-300	4.35	3.9	3.45	3	2.73	2.49	2.31	2.04	1.83	1.5
JK30-400	5.8	5.2	4.6	4	3.64	3.32	3.08	2.72	2.44	2
JK30-500	7.25	6.5	5.75	5	4.55	4.15	3.85	3.4	3.05	2.5
JK30-600	8.7	7.8	6.9	6	5.46	4.98	4.62	4.08	3.66	3
JK30-700	10.15	9.1	8.05	7	6.37	5.81	5.39	4.76	4.27	3.5
JK30-800	11.6	10.4	9.2	8	7.28	6.64	6.16	5.44	4.88	4
JK30-900	13.05	11.7	10.35	9	8.19	7.47	6.93	6.12	5.49	4.5

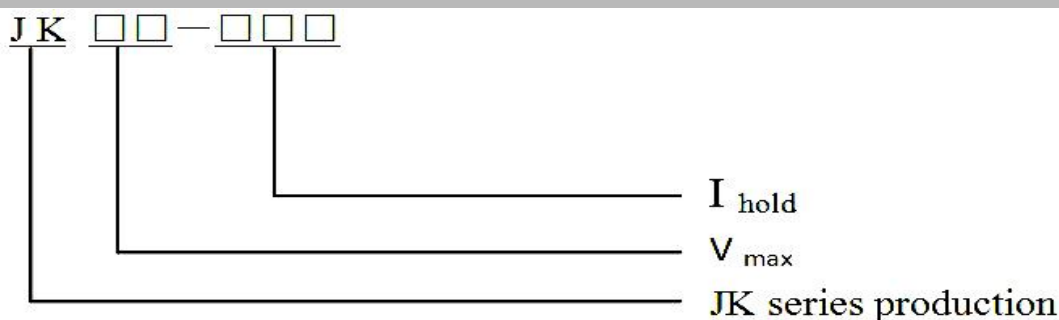
Electrical Characteristic

JK30 Series

Model	I _{Hold} (A)	I _{Trip} (A)	V _{max}	I _{max}	P _{d Max}	Maximum Time to Trip		Resistance (mΩ)	
			V _(DC)	A	W	Current (A)	Time (S)	R _{min}	R _{max}
JK30-050	0.5	1.0	30	40	0.5	2.5	5.0	250	600
JK30-075	0.75	1.5	30	40	0.6	3.75	5.0	200	370
JK30-090	0.90	1.8	30	40	0.7	4.5	8.0	100	220
JK30-110	1.10	2.2	30	40	0.7	5.5	8.0	70	200
JK30-120	1.20	2.4	30	40	0.8	6.0	8.0	80	180
JK30-135	1.35	1.7	30	40	0.8	6.75	8.0	70	160

JK30-160	1.60	3.2	30	40	0.9	8.0	8.0	60	140
JK30-185	1.85	3.7	30	40	1.0	9.25	8.0	50	120
JK30-200	2.00	4.0	30	40	1.2	10.0	11	40	100
JK30-250	2.50	5.0	30	40	1.2	12.5	11	30	80
JK30-300	3.00	6.0	30	40	2.0	15.0	11	30	70
JK30-400	4.00	8.0	30	40	2.5	20.0	12.7	10	60
JK30-500	5.00	10	30	40	3.0	25.0	14.5	10	50
JK30-600	6.00	12	30	40	3.5	30.0	16	5	40
JK30-700	7.00	14	30	40	3.8	35.0	17.5	5	30
JK30-800	8.00	16	30	40	4.0	40.0	18.8	5	25
JK30-900	9.00	18	30	40	4.2	40.0	20	5	20

Marking System



Test Procedures And Requirements

JK30 Series

Test	Test Conditions	Accept/Reject Criteria
Resistance	In still air @ 25°C	$R_{min} \leq R \leq R_{max}$
Time to Trip	Specified current, V_{max} , 25°C	Tmaximum Time to Trip
Hold Current	60min, at I_H	No trip
Trip Cycle Life	V_{max} , I_{max} , 100cycles	No arcing or burning
Trip Endurance	V_{max} , 24hours	No arcing or burning

Physical Characteristics and Environmental Specifications

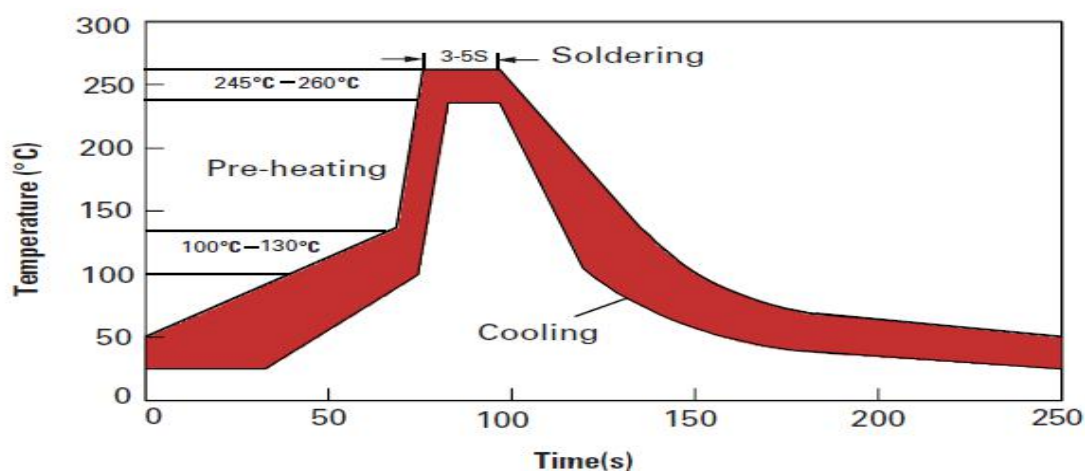
Physical Characteristics

JK30 Series

Test	Conditions	Resistance change
Passive aging	+85°C, 1000hrs	±8% typical
Humidity aging	+85°C, 85%R.H.1000hrs	±8% typical
Thermal shock	+125°C to -55°C, 10times	±12% typical
Resistance to solvent	MIL-STD-202, Method 215	No change
Vibration	MIL-STD-202, Method 201	No change

Operation Condition

- 1 Ambient temperature: $-40^{\circ}\text{C} \sim 85^{\circ}\text{C}$
- 2 Humidity: $\leq 95\% \text{HR}(40^{\circ}\text{C})$
- 3 Atmospheric pressure: $86\text{Kpa} \sim 106\text{Kpa}$.
- 4 Vibration frequency: $10\text{Hz} \sim 50\text{Hz}$.
- 5 Acceleration: 98m/s^2 .
- 6 Storage temperature: $-40^{\circ}\text{C} \sim 85^{\circ}\text{C}$.
- 7 Soldering
 - 7.1 Wave Soldering:
 - Soldering Temperature: $240^{\circ}\text{C} \sim 270^{\circ}\text{C}$
 - Soldering Time: $\leq 5\text{sec}$.
 - Soldering Position: Resettable fuse wire and the bottom $\geq 6\text{mm}$.

*recommended curve*

7.2 Manual soldering

- Soldering Temperature: $280^{\circ}\text{C} \sim 300^{\circ}\text{C}$
- Soldering Time: $\leq 2\text{sec}$.
- Soldering Position: Resettable fuse wire and the bottom $\geq 6\text{mm}$.

Electrical Specifications:

I_H =Hold current: maximum current at which the device will not trip at 25°C still air.

I_T =Trip current: minimum current at which the device will always trip at 25°C still air.

V_{max} =Maximum 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 by the device when in state air environment.

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

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

Packaging and Storage

JK30-050~JK30-250 1000Pcs/Bag or 2000Pcs/Box

JK30-300~JK30-500 500 Pcs/Bag

JK30-600~JK30-900 200 Pcs/Bag