

Polymer PTC Resettable Fuse JK60 Series

Features:

- ◇ RoHS Compliant & Halogen Free
- ◇ Radial leaded Devices
- ◇ Cured, flame retardant epoxy polymer insulating material meets UL94V-0 requirements
- ◇ Operation Current: 0.05A~5A , Maximum Voltage: 60Vdc, Operating Temperature: -40 C TO 85 C
- ◇ Agency recognition:UL、TUV



Product Dimensions

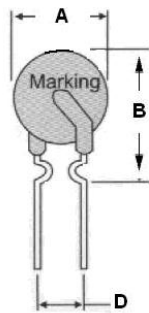


Fig.1

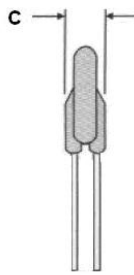


Fig.2

Unit : mm

JK60 Series

Model	Dimensions (mm)				Lead material	Shape
	A(max)	B(max)	C(max)	D(typ)	Tinned matel(mm)	Fig
JK60-005	5.0	8.5	3.0	5.1	24AWG/Φ0.5	1
JK60-010	5.5	9.5	3.0	5.1	24AWG/Φ0.5	1
JK60-017	7.4	12.7	3.0	5.1	24AWG/Φ0.5	1
JK60-020	7.4	12.7	3.0	5.1	24AWG/Φ0.5	1
JK60-025	7.4	12.7	3.0	5.1	24AWG/Φ0.5	1
JK60-030	7.4	13.0	3.0	5.1	24AWG/Φ0.5	1
JK60-040	7.8	16.2	3.0	5.1	24AWG/Φ0.5	1
JK60-050	7.8	16.2	3.0	5.1	24AWG/Φ0.5	1
JK60-065	9.7	17.8	3.0	5.1	22AWG/Φ0.6	1
JK60-075	10.4	18.4	3.0	5.1	22AWG/Φ0.6	1
JK60-090	11.7	18.4	3.0	5.1	22AWG/Φ0.6	1



JK60-110	13.0	18.0	3.0	5.1	20 AWG/Φ0.8	2
JK60-135	14.5	19.6	3.0	5.1	20 AWG/Φ0.8	2
JK60-160	16.3	21.3	3.0	5.1	20 AWG/Φ0.8	2
JK60-185	17.8	22.9	3.0	5.1	20 AWG/Φ0.8	2
JK60-200	17.8	22.9	3.0	5.1	20 AWG/Φ0.8	2
JK60-250	21.3	26.4	3.0	10.2	20 AWG/Φ0.8	2
JK60-300	21.3	26.4	3.0	10.2	20 AWG/Φ0.8	2
JK60-375	28.5	33.5	3.0	10.2	20 AWG/Φ0.8	2
JK60-500	28.5	33.5	3.0	10.2	20 AWG/Φ0.8	2

Note: ① Dimensions A, B, C is the maximum size, D values are typical tolerance of $\pm 0.50\text{mm}$

Thermal Derating Chart-IH (A)

JK60 Series

Model	Maximum ambient operating temperatures (°C)									
	-40	-20	0	25	40	50	60	70	80	85
JK60-005	0.08	0.07	0.06	0.05	0.04	0.04	0.03	0.03	0.02	0.02
JK60-010	0.15	0.13	0.12	0.10	0.09	0.08	0.07	0.06	0.05	0.04
JK60-017	0.25	0.23	0.20	0.17	0.15	0.13	0.12	0.10	0.09	0.06
JK60-020	0.30	0.27	0.24	0.20	0.18	0.16	0.14	0.12	0.10	0.08
JK60-025	0.37	0.34	0.30	0.25	0.22	0.20	0.18	0.15	0.13	0.10
JK60-030	0.45	0.40	0.35	0.30	0.27	0.24	0.21	0.19	0.16	0.12
JK60-040	0.60	0.54	0.47	0.40	0.36	0.32	0.28	0.25	0.21	0.16
JK60-050	0.75	0.68	0.59	0.50	0.45	0.40	0.36	0.31	0.27	0.20
JK60-065	0.97	0.88	0.77	0.65	0.58	0.52	0.46	0.41	0.35	0.26
JK60-075	1.12	1.02	0.89	0.75	0.67	0.60	0.54	0.47	0.40	0.30
JK60-090	1.35	1.22	1.07	0.90	0.81	0.73	0.64	0.56	0.48	0.36
JK60-110	1.65	1.49	1.31	1.10	0.99	0.89	0.79	0.69	0.59	0.44
JK60-135	2.02	1.83	1.60	1.35	1.21	1.09	0.97	0.85	0.72	0.54
JK60-160	2.40	2.17	1.90	1.60	1.44	1.29	1.15	1.00	0.86	0.64
JK60-185	2.77	2.51	2.20	1.85	1.66	1.49	1.33	1.16	1.00	0.74
JK60-200	3.00	2.72	2.38	2.00	1.80	1.62	1.44	1.26	1.08	0.80
JK60-250	3.75	3.40	2.97	2.50	2.25	2.02	1.80	1.57	1.35	1.00
JK60-300	4.50	4.08	3.57	3.00	2.70	2.43	2.16	1.89	1.62	1.20
JK60-375	5.62	5.1	4.46	3.75	3.37	3.03	2.70	2.36	2.02	1.50
JK60-500	7.50	6.80	5.95	5.00	4.50	4.05	3.60	3.15	2.70	2.00



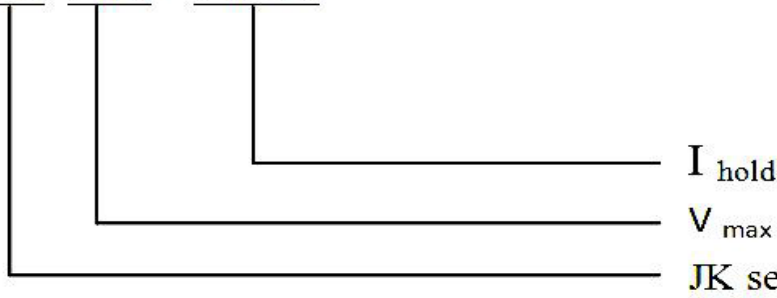
Electrical Characteristic

JK60 Series

Model	I _{Hold} (A)	I _{Trip} (A)	V _{max}	I _{max}	P _{d max}	Maximum Time to Trip		Nominal resistance(Ω)	
			V _(DC)	A _(DC)	W	Current (A)	Time (S)	R _{min}	R _{max}
JK60-005	0.05	0.15	60	40	0.26	0.25	8.0	7.3	20
JK60-010	0.10	0.3	60	40	0.38	0.5	5.0	2.5	7.5
JK60-017	0.17	0.34	60	40	0.48	0.85	5.0	2	5.21
JK60-020	0.2	0.4	60	40	0.41	1.0	5.0	1.5	2.84
JK60-025	0.25	0.5	60	40	0.45	1.25	5.0	1.0	1.95
JK60-030	0.30	0.6	60	40	0.49	1.5	5.0	0.76	1.38
JK60-040	0.40	0.8	60	40	0.56	2.0	5.0	0.45	0.88
JK60-050	0.50	1.0	60	40	0.77	2.5	5.0	0.40	0.79
JK60-065	0.65	1.3	60	40	0.88	3.25	5.0	0.31	0.50
JK60-075	0.75	1.5	60	40	0.92	3.75	5.0	0.25	0.42
JK60-090	0.90	1.8	60	40	0.99	4.5	5.0	0.20	0.33
JK60-110	1.10	2.2	60	40	1.5	5.5	8.0	0.15	0.27
JK60-135	1.35	2.7	60	40	1.7	6.75	8.0	0.12	0.21
JK60-160	1.60	3.2	60	40	1.9	8.0	8.0	0.09	0.16
JK60-185	1.85	3.7	60	40	2.1	9.25	8.0	0.08	0.14
JK60-200	2.00	4.0	60	40	2.3	10.0	8.0	0.07	0.14
JK60-250	2.50	5.0	60	40	2.5	12.5	8.0	0.05	0.10
JK60-300	3.00	6.0	60	40	2.8	15.0	8.0	0.04	0.08
JK60-375	3.75	7.5	60	40	3.2	18.75	24.0	0.03	0.06
JK60-500	5.00	10	60	40	3.5	25.0	24.0	0.02	0.06

Marking System

JK □□ - □□□



Test Procedures And Requirements

JK60 Series

Test	Test Conditions	Accept/Reject Criteria
Resistance	In still air @ 25 °C	R _{min} ≤ R ≤ 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

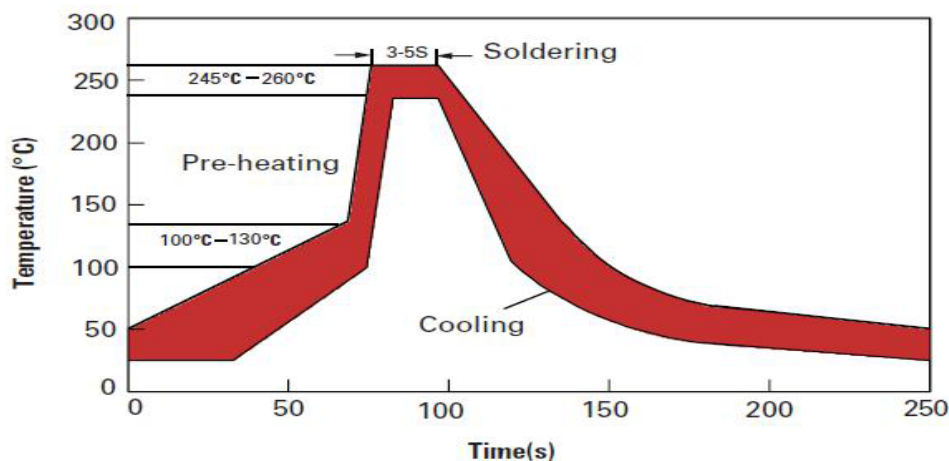
Physical Characteristics

JK60 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 °C ~ 85 °C
- 2 Humidity: ≤95%HR(40 °C)
- 3 Atmospheric pressure: 86Kpa ~ 106Kpa.
- 4 Vibration frequency: 10Hz ~ 50Hz.
- 5 Acceleration: 98m/s².
- 6 Storage temperature: -40 °C ~ 85 °C .
- 7 Soldering
- 7.1 Wave Soldering:
 - Soldering Temperature: 240 °C ~ 270 °C
 - Soldering Time: ≤5sec.
 - Soldering Position: Resettable fuse wire and the bottom ≥ 6mm .



recommended curve



7.2 Manual soldering

Soldering Temperature: 280 °C ~ 300 °C

Soldering Time: ≤ 2sec.

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

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

JK60-005 ~ JK60-110 1000Pcs/Bag or 2000Pcs/Box

JK60-135 ~ JK60-200 500 Pcs/Bag

JK60-250 ~ JK60-500 200 Pcs/Bag

