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承 认 书

APPROVAL SHEET

编 号 No.	
日期 Date	

客 户 Customer	
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品 名 Product	PPTC Fuse
系 列 Series	BJK60 series

料号 Part No.	规格描述 Specification	备注 Remark
贝特电子 Betterfuse		
客 户 Customer		

环保特别提示 Special instructions for environmental protection
本产品:

供应商-贝特电子 Supplier-Betterfuse	零件承认章 Approval Signet	客 户 Customer	零件承认章 Approval Signet
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1. SCOPE AND DESCRIPTION



Following electronic product specifications apply to fuses of the BJK60 series. The BJK60 series is a PPTC fuse for over-current protection.

Almost anywhere there is a low voltage power supply, up to DC60V and a load to be protected, including Personal computer, Toys, Industrial controls.

2. GENERAL INFORMATION

General Description

BJK60 series resettable fuse is specially designed for communication switches, distribution frame. This series has been many times tested by the ministry of information industry, protection product testing center and CSBTS, which performance is completely conform to the post and telecommunications industry standard "YDT 741-2002, Communications equipment overcurrent protection with positive temperature coefficient (PTC) thermistor technical requirements"

Detailed Features

- Radial Leaded Devices
- Cured, flame retardant epoxy polymer insulating material meets UL94V-0 requirements
- RoHS compliant and lead-free environmental specifications
- Operation Current: 0.05~5.0A
- Maximum Operation Voltage: 60V DC
- Maximum Fault current: 40A

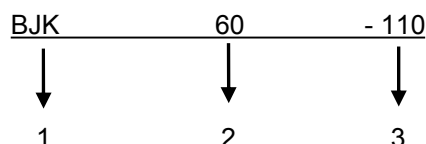
3. AGENCY APPROVALS

Agency	Agency File Number	Ampere/ Voltage Range
	E345393	0.05A~5A/60V

4. PART NUMBERING SYSTEM

4.1 Part Number

Example: BJK60-110



1	Product Series	BJK
2	Maximum Operation Voltage.....	60V
3	Hold Current	1.1A

5. CONSTRUCTION AND MECHANICAL CHARACTERISTICS

Dimensions (units: mm)

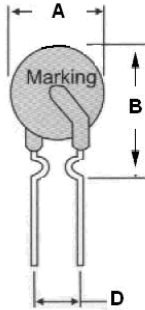


Fig 1

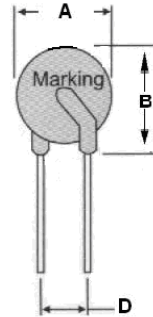
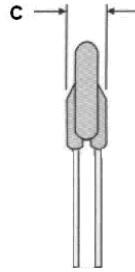
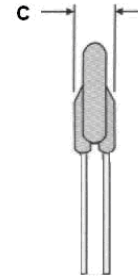


Fig 2



Product number	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 $\pm 0.50M$

6. ELECTRICAL SPECIFICATIONS

Product number	I_{Hold} (A)	I_{Trip} (A)	V_{max}	I_{max}	$P_{\text{d max}}$	Maximum Time to Trip		Nominal resistance (Ω)	
			$V_{\text{(DC)}}$	A	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	0.2	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

Note: I_{hold} —Hold Current: Maximum current device will not trip in 25°C still air.

I_{trip} —Trip current: Minimum current at which the device will always trip in 25°C still air.

V_{max} —Maximum operating voltage device can withstand without damage at rated current (I_{max}).

I_{max} —Maximum fault current device can withstand without damage at rated voltage (V_{max}).

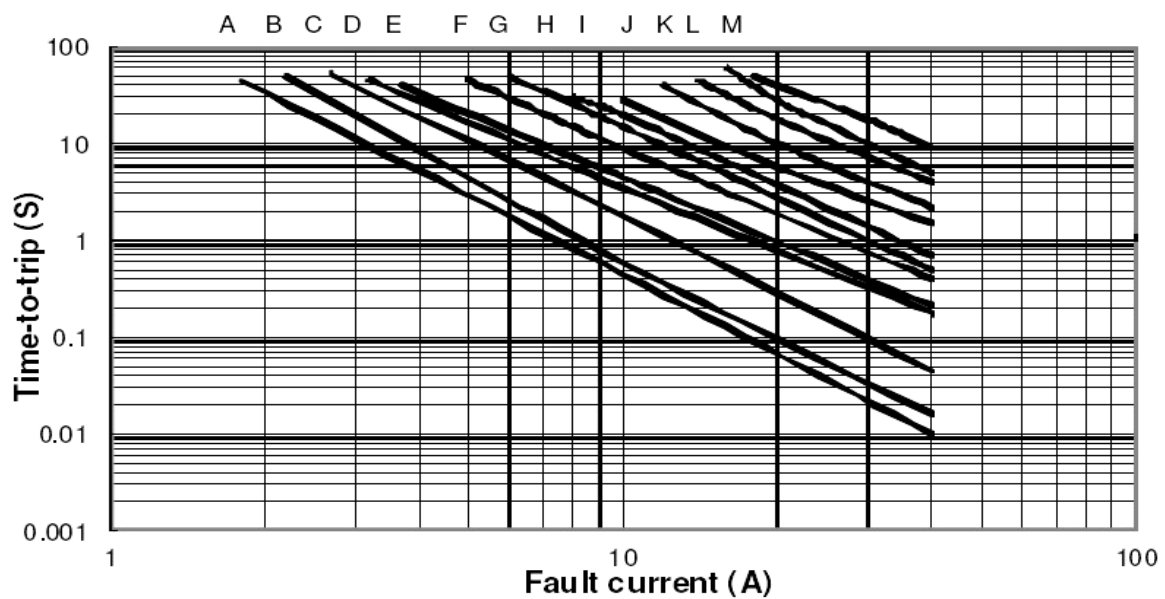
P_{d} —Typical power dissipated from device when in the tripped state in 25°C still air.

$R_{\text{min/max}}$ —Minimum/Maximum device resistance prior to tripping at 25°C.

Thermal derating ratio

Temperature	-40°C	-20°C	0°C	25°C	30°C	40°C	50°C	60°C	70°C	85°C
JK60 series	150%	136%	119%	100%	90%	81%	72%	63%	54%	40%

Typical time-to-trip at 25°C



Note: A=JK60-005 B=JK60-010

C=JK60-017/020 D=JK60-025

E=JK60-030 F=JK60-040

G=JK60-050 H=JK60-065

I=JK60-075 J=JK60-090

K=JK60-110 L=JK60-135

M=JK60-160 N=JK60-185/200

O=JK60-250 P=JK60-300

Q=JK60-375 R=JK60-500

7. Standard Package

JK60-005~JK60-110 1000Pcs/Bag or 2000Pcs/Box
 JK60-135~JK60-200 500 Pcs/Bag
 JK60-250~JK60-500 200 Pcs/Bag

8. Operation Condition

8.1 Ambient temperature: $-40^{\circ}\text{C} \sim 85^{\circ}\text{C}$

8.2 Humidity: $\leq 95\% \text{HR}(40^{\circ}\text{C})$

8.3 Atmospheric pressure: 86Kpa ~106Kpa.

8.4 Vibration frequency: 10Hz ~ 50Hz.

8.5 Acceleration: 98m/s^2 .

8.6 Storage temperature: $-40^{\circ}\text{C} \sim 85^{\circ}\text{C}$.

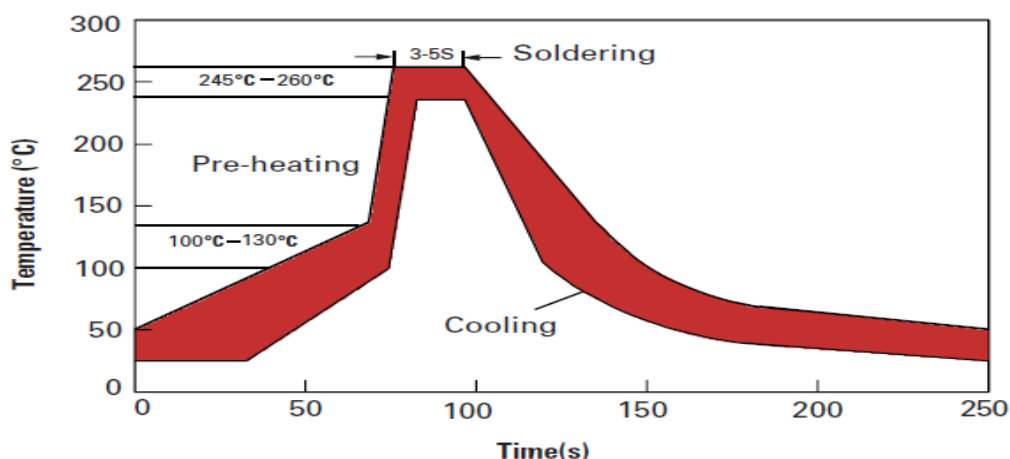
8.7 Soldering

8.7.1 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 $\geq 6\text{mm}$.



8.7.2 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 $\geq 6\text{mm}$.

9. Environmental Specifications

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

10. Warning

- 10.1. Please read this specification before use the product.
- 10.2. 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.
- 10.3 PPTC resettable fuses are intended for occasional over current protection. Application for repeated over current condition or prolonged trip are not anticipated.
- 10.4 Please avoid contact of PPTC resettable fuses with chemical solvent. Prolonged contact will damage the device performance.
- 10.5 You are requested not to use our product deviating from the agreed specifications.

11. ORDERING INFORMATION

The following information are necessary in order to place your order with us correctly:

Series No.	Amp Code	Packaging Code	Quantity	Purchase Order No.
BJK30				

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东莞市贝特电子科技股份有限公司

Room 601 of 16 Block, Xinzhu Yuan, No.4, Xinzhu Road, Songshan Lake Hightech Industrial Development Zone, Dongguan City, Guangdong P.R.C
中国广东省东莞市松山湖国家高新技术产业开发区新竹路 4 号新竹苑 16 座办公 601

Tel: +86 769-2307 8212 Fax: +86 769-8352 1857

Web: www.betterfuse.com

Email: info@betterfuse.com

12. APPENDIX

Appendix A: International Certifications

XGPU2.E345393 - Thermistor-type Devices - Component



XGPU2.E345393 Thermistor-type Devices - Component

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Thermistor-type Devices - Component

See General Information for Thermistor-type Devices - Component

DONGGUAN BETTER ELECTRONIC TECHNOLOGY CO LTD

E345393

Rm 601 Of 16 Bldg
Xinzhu Yuan No 4 Xinzhu Rd
Songshanlake Hightech Industrial Development Zone
Dongguan, Guangdong 523808 CHINA

PTC current limiter:

Model No.	Voltage (V)		Current (A)				T ₉₀ (°C)	Class	CA
	V _{max}	V _r	I _h (mA)	I _t (mA)	I _{max} (A)	I _{sc} (A)			
BJK60-110	60 V dc	60 V dc	1100	2200	40	40	85	C2	1(120), 2, 4, #
BJK60-135	60 V dc	60 V dc	1350	2700	40	40	85	C2	1(120), 2, 4, #
BJK60-160	60 V dc	60 V dc	1600	3200	40	40	85	C2	1(120), 2, 4, #
BJK60-185	60 V dc	60 V dc	1850	3750	40	40	85	C2	1(120), 2, 4, #
BJK60-250	60 V dc	60 V dc	2500	5000	40	40	85	C2	1(120), 2, 4, #
BJK60-300	60 V dc	60 V dc	3000	6000	40	40	85	C2	1(120), 2, 4, #
BJK60-375	60 V dc	60 V dc	3750	7500	40	40	85	C1	1(120), 2, 4, #
BJK6-075	6 V dc	6 V dc	750	1500	40	40	85	C2	1(98.8), 2, 4, #
BJK6-090	6 V dc	6 V dc	900	1800	40	40	85	C2	1(98.8), 2, 4, #
BJK6-110	6 V dc	6 V dc	1100	2200	40	40	85	C2	1(98.8), 2, 4, #
BJK6-120	6 V dc	6 V dc	1200	2400	40	40	85	C2	1(98.8), 2, 4, #
BJK6-135	6 V dc	6 V dc	1350	2700	40	40	85	C2	1(98.8), 2, 4, #
BJK6-155	6 V dc	6 V dc	1550	3100	40	40	85	C1	1(99.1), 2, 4, #
BJK6-160	6 V dc	6 V dc	1600	3200	40	40	85	C1	1(99.1), 2, 4, #
BJK6-185	6 V dc	6 V dc	1850	3700	40	40	85	C1	1(99.1), 2, 4, #
BJK6-250	6 V dc	6 V dc	2500	5000	40	40	85	C1	1(83.1), 2, 4, #
BJK250-180T	60 V dc	60 V dc	180	540	10	10	85	C3	1(85), 2, 4, #
BJK250-200u	60 V dc	60 V dc	200	600	10	10	85	C3	1(85), 2, 4, #
BJK250-400u	60 V dc	60 V dc	400	1200	10	10	85	C3	1(85), 2, 4, #
BJK250-600u	60 V dc	60 V dc	600	1800	10	10	85	C3	1(85), 2, 4, #
BJK250-800u	60 V dc	60 V dc	800	2400	10	10	85	C1	1(112.1) 2, 4, #

PTC current limiter:

Model No.	Voltage (V)		Current (A)				T ₉₀ (°C)	Class	CA
	V _{max}	V _r	I _h (mA)	I _t (mA)	I _{max} (A)	I _{sc} (A)			
BJK-P070	16 V dc	16 V dc	700	1450	100	100	85	C3	1(120), 2, 3, 4 #
BJK-P100	16 V dc	16 V dc	1000	2500	100	100	85	C3	1(120), 2, 3, 4 #
BJK-P120	16 V dc	16 V dc	1200	2700	100	100	85	C3	1(120), 2, 3, 4 #
BJK-D170	16 V dc	16 V dc	1700	3400	100	100	85	C3	1(120), 2, 4 #
BJK-D175	16 V dc	16 V dc	1750	3800	100	100	85	C3	1(75), 2, 4 #
BJK-P175	16 V dc	16 V dc	1750	3800	100	100	85	C3	1(75), 2, 4 #

XGPU2.E345393 - Thermistor-type Devices - Component

Marking: Company name or trademark, part designation and the Recognized Component Mark  permanently and legibly marked on individual parts or on the smallest shipping container.

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