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承 认 书

APPROVAL SHEET

编号 No.	BJK60-110-A/1-B
日期 Date	2020.07.03

客 户 Customer	
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品 名 Product	Radial leaded PPTC fuse
系 列 Series	BJK60 series

料号 Part No.	规格描述 Specification	备注 Remark
贝特电子 Betterfuse	Radial leaded PPTC 60VDC	
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 have 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 & Halogen Free
- Operation Current: 0.05A~5A
- Maximum Voltage: 60V DC
- Operating Temperature: -40°C TO 85°C

3. AGENCY APPROVALS

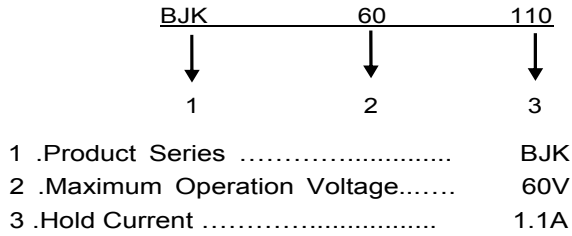
Agency	Agency File Number	Ampere/ Voltage Range
	E345393	60V:0.1A;0.17A;0.2A;0.25A;0.3A;0.4A;0.5A;0.65A 0.75A;0.9A;1.1A;1.35A;1.6A;1.85A;2.5A;3A;3.75A
	E345393	60V:0.1A;0.17A;0.2A;0.25A;0.3A;0.4A;0.5A;0.65A 0.75A;0.9A



4. PART NUMBERING SYSTEM

4.1 Part Number

Example: BJK60-110



5. CONSTRUCTION AND MECHANICAL CHARACTERISTICS

Dimensions (units: mm)

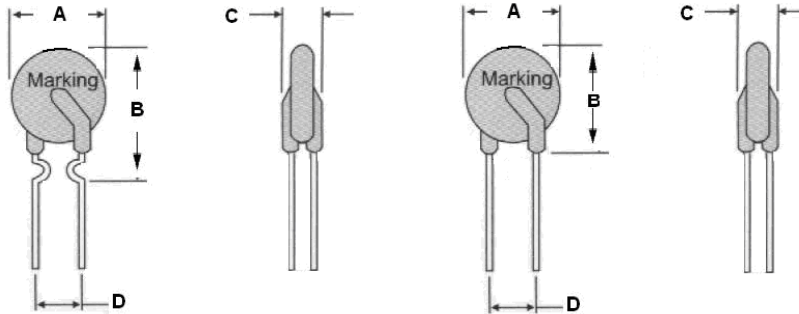


Fig.1

Fig.2

Model	Dimensions (mm)				Lead material	Shape
	A(max)	B(max)	C(max)	D(typ)	Tinned metal(mm)	Fig
BJK60-005	5.0	8.5	3.0	5.1	24AWG/Φ0.5	1
BJK60-010	5.5	9.5	3.0	5.1	24AWG/Φ0.5	1
BJK60-017	7.4	12.7	3.0	5.1	24AWG/Φ0.5	1
BJK60-020	7.4	12.7	3.0	5.1	24AWG/Φ0.5	1
BJK60-025	7.4	12.7	3.0	5.1	24AWG/Φ0.5	1
BJK60-030	7.4	13.0	3.0	5.1	24AWG/Φ0.5	1
BJK60-040	7.8	16.2	3.0	5.1	24AWG/Φ0.5	1
BJK60-050	7.8	16.2	3.0	5.1	24AWG/Φ0.5	1
BJK60-065	9.7	17.8	3.0	5.1	22AWG/Φ0.6	1
BJK60-075	10.4	18.4	3.0	5.1	22AWG/Φ0.6	1
BJK60-090	11.7	18.4	3.0	5.1	22AWG/Φ0.6	1
BJK60-110	13.0	18.0	3.0	5.1	20 AWG/Φ0.8	2
BJK60-135	14.5	19.6	3.0	5.1	20 AWG/Φ0.8	2
BJK60-160	16.3	21.3	3.0	5.1	20 AWG/Φ0.8	2
BJK60-185	17.8	22.9	3.0	5.1	20 AWG/Φ0.8	2
BJK60-200	17.8	22.9	3.0	5.1	20 AWG/Φ0.8	2
BJK60-250	21.3	26.4	3.0	10.2	20 AWG/Φ0.8	2
BJK60-300	21.3	26.4	3.0	10.2	20 AWG/Φ0.8	2
BJK60-375	28.5	33.5	3.0	10.2	20 AWG/Φ0.8	2
BJK60-500	28.5	33.5	3.0	10.2	20 AWG/Φ0.8	2

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



6. ELECTRICAL SPECIFICATIONS

Electrical Characteristics

Model	I _H (A)	I _T (A)	V _{max}	I _{max}	P _d	Maximum Time-to-Trip		Resistance (Ω)	
			V _(DC)	A _(DC)	W	Current (A)	Time (S)	R _{min}	R _{max}
BJK60-005	0.05	0.15	60	40	0.26	0.25	8.0	7.3	20
BJK60-010	0.10	0.3	60	40	0.38	0.5	5.0	2.5	7.5
BJK60-017	0.17	0.34	60	40	0.48	0.85	5.0	2	5.21
BJK60-020	0.2	0.4	60	40	0.41	1.0	5.0	1.5	2.84
BJK60-025	0.25	0.5	60	40	0.45	1.25	5.0	1.0	1.95
BJK60-030	0.30	0.6	60	40	0.49	1.5	5.0	0.76	1.38
BJK60-040	0.40	0.8	60	40	0.56	2.0	5.0	0.45	0.88
BJK60-050	0.50	1.0	60	40	0.77	2.5	5.0	0.40	0.79
BJK60-065	0.65	1.3	60	40	0.88	3.25	5.0	0.31	0.50
BJK60-075	0.75	1.5	60	40	0.92	3.75	5.0	0.25	0.42
BJK60-090	0.90	1.8	60	40	0.99	4.5	5.0	0.20	0.33
BJK60-110	1.10	2.2	60	40	1.5	5.5	8.0	0.15	0.27
BJK60-135	1.35	2.7	60	40	1.7	6.75	8.0	0.12	0.21
BJK60-160	1.60	3.2	60	40	1.9	8.0	8.0	0.09	0.16
BJK60-185	1.85	3.7	60	40	2.1	9.25	8.0	0.08	0.14
BJK60-200	2.00	4.0	60	40	2.3	10.0	8.0	0.07	0.14
BJK60-250	2.50	5.0	60	40	2.5	12.5	8.0	0.05	0.10
BJK60-300	3.00	6.0	60	40	2.8	15.0	8.0	0.04	0.08
BJK60-375	3.75	7.5	60	40	3.2	18.75	24.0	0.03	0.06
BJK60-500	5.00	10	60	40	3.5	25.0	24.0	0.02	0.06

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.

Thermal Derating Chart-I_H (A)

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
BJK60 series	147%	136%	119%	100%	90%	81%	72%	63%	54%	40%



7. Standard Package

Packaging quantity

BJK60-005~BJK60-110	1000Pcs/Bag	or 2000Pcs/Box
BJK60-135~BJK60-200	500 Pcs/Bag	
BJK60-250~BJK60-500	200 Pcs/Bag	

8. Operation Condition

Wave Soldering

Soldering Temperature: 245°C~260°C

Soldering Time: ≤5sec

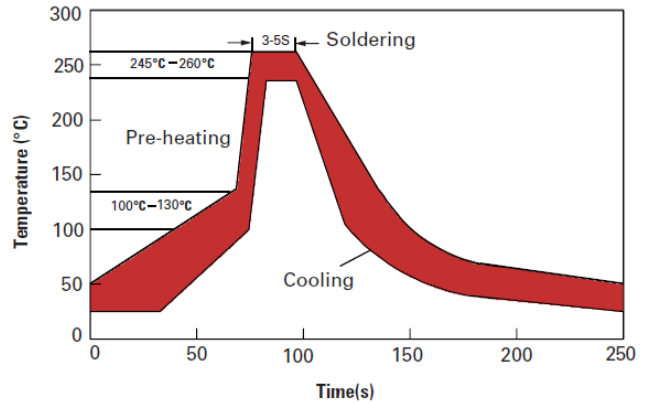
Soldering Position: Resettable fuse lead and the distance from the bottom ≥ 6mm

Manual soldering

Soldering Temperature: 250°C~280°C

Soldering Time: ≤3sec

Soldering Position: Resettable fuse lead and the distance from the bottom ≥ 6mm



9. Environmental Specifications

Environmental Specifications

Test	Conditions	Resistance change
Passive Aging	+85°C, 1000hours	±8% typical
Humidity Aging	+85°C, 85%R.H.1000hours	±8% typical
Thermal Shock	+125°C to -55°C, 10 Times	±12% typical
Solvent Resistance	MIL-STD-202, Method 215F	No change
Vibration	MIL-STD-202, Method 201	No change



10. Warning

- 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.

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.
BJK60				

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东莞市贝特电子科技股份有限公司

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XGPU2.E345393 - Thermistor-type Devices - Component

Thermistor-type Devices - Component

See General Information for Thermistor-type Devices - Component

DONGGUAN BETTER ELECTRONICS TECHNOLOGY CO LTD

E345393

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

PTC current limiter:


Model No.	Voltage (Vac)		Current (mA)				Tmoa (°C)	Class	CA
	Vmax	Vr	Ih	It	Imax	Isc			
BJK60-010	60 Vdc	60 Vdc	100	200	40	40	85	C2	1(110), 2, 4 #
BJK60-017	60 Vdc	60 Vdc	170	340	40	40	85	C2	1(110), 2, 3, 4 #
BJK60-020	60 Vdc	60 Vdc	200	400	40	40	85	C2	1(110), 2, 4 #
BJK60-025	60 Vdc	60 Vdc	250	500	40	40	85	C2	1(116), 2, 3, 4 #
BJK60-030	60 Vdc	60 Vdc	300	600	40	40	85	C2	1(116), 2, 3, 4 #
BJK60-040	60 Vdc	60 Vdc	400	800	40	40	85	C2	1(116), 2, 3, 4 #
BJK60-050	60 Vdc	60 Vdc	500	1000	40	40	85	C1	1(115), 2, 3, 4 #
BJK60-065	60 Vdc	60 Vdc	650	1300	40	40	85	C1	1(120), 2, 4 #
BJK60-075	60 Vdc	60 Vdc	750	1500	40	40	85	C1	1(120), 2, 4 #
BJK60-090	60 Vdc	60 Vdc	900	1800	40	40	85	C1	1(120), 2, 4 #
BJK60-110	60 Vdc	60 Vdc	1100	2200	40	40	85	C2	1(120), 2, 4 #
BJK60-135	60 Vdc	60 Vdc	1350	2700	40	40	85	C2	1(120), 2, 4 #
BJK60-160	60 Vdc	60 Vdc	1600	3200	40	40	85	C2	1(120), 2, 4 #
BJK60-185	60 Vdc	60 Vdc	1850	3750	40	40	85	C2	1(120), 2, 4 #
BJK60-250	60 Vdc	60 Vdc	2500	5000	40	40	85	C2	1(120), 2, 4 #
BJK60-300	60 Vdc	60 Vdc	3000	6000	40	40	85	C2	1(120), 2, 4 #
BJK60-375	60 Vdc	60 Vdc	3750	7500	40	40	85	C1	1(120), 2, 4 #



Note "\$" - Denotes the I-hold and I-trip are upon ambient at 40 °C.

Note "#" - Denotes refer to Report for further conditions of acceptability.

Indicates unique Condition of Acceptability

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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XGPU8.E345393 - Thermistor-type Devices Certified for Canada - Component

Thermistor-type Devices Certified for Canada - Component

See General Information for Thermistor-type Devices Certified for Canada - Component

DONGGUAN BETTER ELECTRONICS TECHNOLOGY CO LTD

E345393

Rm 601 Of 16 Blk

Xinzhu Yuan No 4 Xinzhu Rd

Songshanlake Hightech Industrial Development Zone

Dongguan, Guangdong 523808 CHINA

PTC current limiter:

Model No.	Vmax	Vr	Ih	It	Imax	Isc	Tmoa (°C)	Class	CA
BJK60-010	60 Vdc	60 Vdc	100	200	40	40	85	C2	1(110), 2, 4 #
BJK60-017	60 Vdc	60 Vdc	170	340	40	40	85	C2	1(110), 2, 3, 4 #
BJK60-020	60 Vdc	60 Vdc	200	400	40	40	85	C2	1(110), 2, 4 #
BJK60-025	60 Vdc	60 Vdc	250	500	40	40	85	C2	1(116), 2, 3, 4 #
BJK60-030	60 Vdc	60 Vdc	300	600	40	40	85	C2	1(116), 2, 3, 4 #
BJK60-040	60 Vdc	60 Vdc	400	800	40	40	85	C2	1(116), 2, 3, 4 #
BJK60-050	60 Vdc	60 Vdc	500	1000	40	40	85	C1	1(115), 2, 3, 4 #
BJK60-065	60 Vdc	60 Vdc	650	1300	40	40	85	C1	1(120), 2, 4 #
BJK60-075	60 Vdc	60 Vdc	750	1500	40	40	85	C1	1(120), 2, 4 #
BJK60-090	60 Vdc	60 Vdc	900	1800	40	40	85	C1	1(120), 2, 4 #

Note "\$" - Denotes the I-hold and I-trip are upon ambient at 40 °C.

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