



贝特卫士®

更好的电路安全卫士!
You build electronics, We safeguard them!

承 认 书

APPROVAL SHEET

编号 No.	BJK30-075-A/2-B
日期 Date	2020.08.19

客 户 Customer	
-----------------	--

品 名 Product	Radial leaded PPTC fuse
系 列 Series	BJK30 series

料号 Part No.	规格描述 Specification	备注 Remark
贝特电子 Betterfuse	Radial leaded PPTC 30VDC	
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
制 作 Make			
审 核 Check			
确 认 Approval			

联络 Contact

业务 Sales	电话 Telephone	手机 Cellphone	邮箱 E-mail

零件承认后敬请回签一份给我司留存, 或将承认后的封面传真(0769-8352 1857)至我司, 谢谢!



Document Record

NO.	Date	Modified Content	Page	Edition	Prepared/modified by	Checked by
1	2017.09.05	Draft	0	A/0	J.Q.	WenQiang Luo
2	2020.07.03	Update content		A/1	YaLan Wang	Fei Gao
3	2020.08.19	Add thermal Derating Chart		A/2	YaLan Wang	Fei Gao
4						
5						
6						
7						
8						

Table of Contents

1. SCOPE AND DESCRIPTION..... 3

2. GENERAL INFORMATION..... 3

3. AGENCY APPROVALS..... 3

4. PART NUMBERING SYSTEM..... 3

5. CONSTRUCTION AND MECHANICAL CHARACTERISTICS..... 4

6. ELECTRICAL SPECIFICATIONS..... 5

7. STANDARD PACKAGE..... 6

8. OPERATION CONDITION..... 6

9. ENVIRONMENTAL SPECIFICATION..... 6

10. WARNING..... 7

11. ORDERING INFORMATION..... 7



1. SCOPE AND DESCRIPTION



Following electronic product specifications apply to fuses of the BJK30 series. The BJK30 series is a PPTC fuse for over-current protection.

Almost anywhere there is a low voltage power supply, up to DC30V and a load to be protected, including Personal computer, Toys, Industrial controls.

2. GENERAL INFORMATION


General Description

BJK30 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: 0.5A~9A
- Maximum Voltage: 30V DC
- Operating Temperature: -40°C TO 85°C

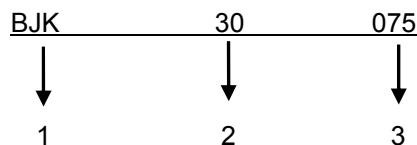
3. AGENCY APPROVALS

Agency	Agency File Number	Ampere/ Voltage Range
	E345393	30V:0.75A;0.9A;1.1A;1.35A;1.60A;1.85A;2A 2.50A;3A;4A;5A;6A;7A;8A;9A

4. PART NUMBERING SYSTEM

4.1 Part Number

Example: BJK30-075



- | | |
|-----------------------------------|-------|
| 1 .Product Series | BJK |
| 2 .Maximum Operation Voltage..... | 30V |
| 3 .Hold Current | 0.75A |



5. CONSTRUCTION AND MECHANICAL CHARACTERISTICS

Dimensions (units: mm)

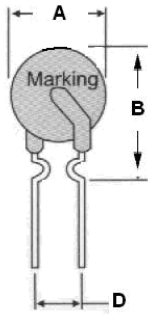


Fig.1

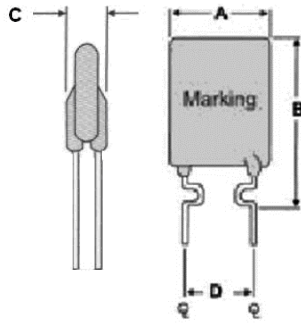


Fig.2

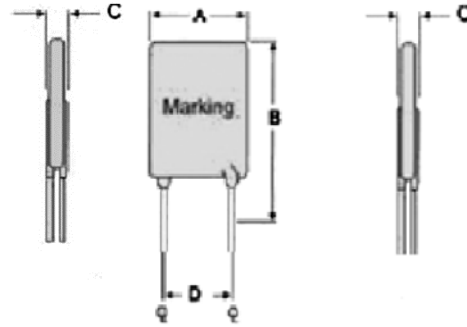


Fig.3

Model	Dimensions (mm)				Lead material Tinned metal(mm)	Shape Fig
	A(max)	B(max)	C(max)	D(typ)		
BJK30-050	7.4	12.7	3.0	5.1	24AWG/Φ0.5	1
BJK30-075	7.4	13.0	3.0	5.1	24AWG/Φ0.5	1
BJK30-090	7.4	18.5	3.0	5.1	24AWG/Φ0.5	2
BJK30-110	7.4	18.5	3.0	5.1	24AWG/Φ0.5	2
BJK30-120	7.4	18.5	3.0	5.1	24AWG/Φ0.5	2
BJK30-135	9.2	17.6	3.0	5.1	24AWG/Φ0.5	2
BJK30-160	9.2	20.2	3.0	5.1	24AWG/Φ0.5	2
BJK30-185	9.2	20.2	3.0	5.1	24AWG/Φ0.5	2
BJK30-200	15.2	20.2	3.0	5.1	24AWG/Φ0.5	2
BJK30-250	13.2	22.4	3.0	5.1	24AWG/Φ0.5	2
BJK30-300	13.2	20.4	3.0	5.1	20 AWG/Φ0.8	3
BJK30-400	14.0	23.7	3.0	5.1	20 AWG/Φ0.8	3
BJK30-500	14.0	23.7	3.0	10.2	20 AWG/Φ0.8	3
BJK30-600	17.2	27.0	3.0	10.2	20 AWG/Φ0.8	3
BJK30-700	17.2	27.0	3.0	10.2	20 AWG/Φ0.8	3
BJK30-800	23.5	29.2	3.0	10.2	20 AWG/Φ0.8	3
BJK30-900	23.5	29.2	3.0	10.2	20 AWG/Φ0.8	3

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 (mΩ)	
			V _(DC)	A	W	Current (A)	Time (S)	R _{min}	R _{max}
BJK30-050	0.5	1.0	30	40	0.5	2.5	5.0	250	600
BJK30-075	0.75	1.5	30	40	0.6	3.75	5.0	200	370
BJK30-090	0.90	1.8	30	40	0.7	4.5	8.0	100	220
BJK30-110	1.10	2.2	30	40	0.7	5.5	8.0	70	200
BJK30-120	1.20	2.4	30	40	0.8	6.0	8.0	80	180
BJK30-135	1.35	2.7	30	40	0.8	6.75	8.0	70	160
BJK30-160	1.60	3.2	30	40	0.9	8.0	8.0	60	140
BJK30-185	1.85	3.7	30	40	1.0	9.25	8.0	50	120
BJK30-200	2.00	4.0	30	40	1.2	10.0	11	40	100
BJK30-250	2.50	5.0	30	40	1.2	12.5	11	30	80
BJK30-300	3.00	6.0	30	40	2.0	15.0	11	30	70
BJK30-400	4.00	8.0	30	40	2.5	20.0	12.7	10	60
BJK30-500	5.00	10	30	40	3.0	25.0	14.5	10	50
BJK30-600	6.00	12	30	40	3.5	30.0	16	5	40
BJK30-700	7.00	14	30	40	3.8	35.0	17.5	5	30
BJK30-800	8.00	16	30	40	4.0	40.0	18.8	5	25
BJK30-900	9.00	18	30	40	4.2	40.0	20	5	20

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.



Thermal Derating Chart-IH (A)

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

7.Standard Package

BJK30-050~BJK30-250 1000Pcs/Bag or 2000Pcs/Box

BJK30-300~BJK30-500 500 Pcs/Bag

BJK30-600~BJK30-900 200 Pcs/Bag

8.Operation Condition

Solderingmethod

Wave Soldering

Soldering Temperature:245°C~260°C

Soldering Time:≤5sec

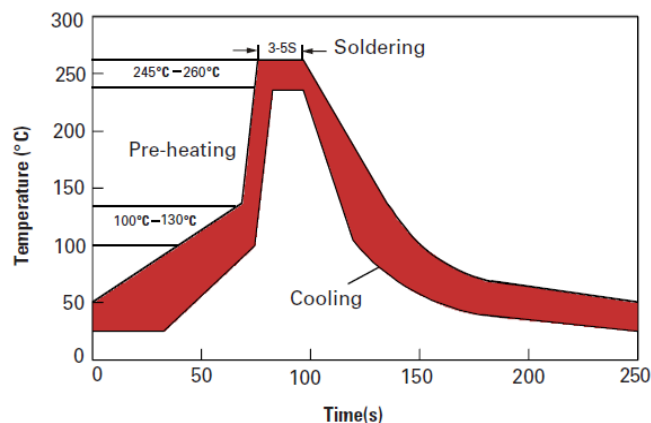
Soldering Position: Resettable fuse lead and the distance fromthe bottom ≥ 6mm

Manual soldering

Soldering Temperature:250°C~280°C

Soldering Time: ≤3sec

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





9.Environmental Specifications

Environmental Specifications

Test	Conditions	Resistance change
Passive aging	+85℃, 1000hours	±8% typical
Humidity aging	+85℃, 85%R.H.1000hours	±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

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.
BJK30				