



贝特卫士®

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

# 承 认

## APPROVAL SHEET

编号 No.	BJK16-300-A/3-B
日期 Date	2020.08.19

客 户 Customer	
-----------------	--

品 名 Product	Radial leaded PPTC fuse
系 列 Series	BJK-16 series

料号 Part No.	规格描述 Specification	备注 Remark
贝特电子 Betterfuse	Radial leaded PPTC 16VDC	
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	2014.07.10	Draft		A/0	Jeffery	Gem Guo
2	2015.07.31	Add BJK 16-250	4,5,6	A/1	Jeffery	Gem Guo
3	2020.07.03	Update content		A/2	YaLan Wang	Fei Gao
4	2020.08.19	Add thermal Derating Chart	6	A/3	YaLan Wang	Fei Gao
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**

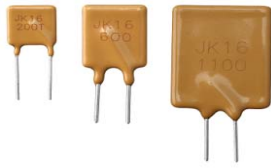
**7. SOLDERING PARAMETERS.....6**

**8. STANDARD PACKAGE.....6**

**9. ORDERING INFORMATION.....8**



### 1. SCOPE AND DESCRIPTION



Following electronic product specifications apply to fuses of the BJK16 series. The BJK16 series is a PPTC fuse for over-current protection.

Almost anywhere there is a low voltage power supply, up to DC16V and a load to be protected, including: Personal computer, Medical electronics, Personal care product.

### 2. GENERAL INFORMATION

#### General Description

BJK16 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: 0.1A~14A
- Maximum Voltage: 16V DC
- Operating Temperature: -40°C TO 85°C

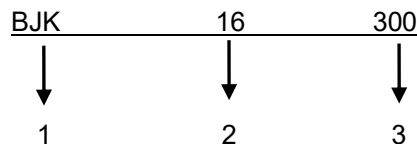
### 3. AGENCY APPROVALS

Agency	Agency File Number	Ampere/ Voltage Range
Pending		

### 4. PART NUMBERING SYSTEM

#### 4.1 Part Number

Example: BJK16-300



- |                                  |     |
|----------------------------------|-----|
| 1 Product Series .....           | BJK |
| 2 Maximum Interrupt Voltage..... | 16V |
| 3 Hold Current .....             | 3A  |



## 5. CONSTRUCTION AND MECHANICAL CHARACTERISTICS

### Dimensions (units: mm)

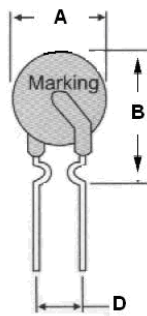


Fig.1

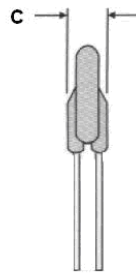


Fig.2



Model	Dimensions (mm)				Lead material	Shape
	A(max)	B(max)	C(max)	D(typ)	Tinned metal(mm)	Fig
BJK16-010(T)	5.5	12.0	3.0	5.1	24 AWG/Φ0.5	1
BJK16-025(T)	5.5	12.0	3.0	5.1	24 AWG/Φ0.5	1
BJK16-030(T)	5.5	12.0	3.0	5.1	24 AWG/Φ0.5	1
BJK16-050(T)	5.5	12.0	3.0	5.1	24 AWG/Φ0.5	1
BJK16-075(T)	7.4	13.5	3.0	5.1	24 AWG/Φ0.5	1
BJK16-090(T)	7.4	13.5	3.0	5.1	24 AWG/Φ0.5	1
BJK16-110(T)	7.4	13.5	3.0	5.1	24 AWG/Φ0.5	1
BJK16-135(T)	7.4	13.5	3.0	5.1	24 AWG/Φ0.5	1
BJK16-160(T)	7.4	14.0	3.0	5.1	24 AWG/Φ0.5	1
BJK16-200(T)	9.0	12.0	3.0	5.1	24 AWG/Φ0.5	2
BJK16-300	9.0	12.0	3.0	5.1	20 AWG/Φ0.8	2
BJK16-400	10.0	13.0	3.0	5.1	20 AWG/Φ0.8	2
BJK16-500	11.8	17.5	3.0	5.1	20 AWG/Φ0.8	2
BJK16-600	13.5	17.5	3.0	5.1	20 AWG/Φ0.8	2
BJK16-700	13.5	23.0	3.0	5.1	20 AWG/Φ0.8	2
BJK16-800	13.5	23.0	3.0	5.1	20 AWG/Φ0.8	2
BJK16-900	15.0	24.0	3.0	5.1	20 AWG/Φ0.8	2
BJK16-1000	18.0	26.0	3.0	5.1	20 AWG/Φ0.8	2
BJK16-1100	18.0	26.0	3.0	5.1	20 AWG/Φ0.8	2
BJK16-1200	22.5	26.0	3.0	10.2	20 AWG/Φ0.8	2
BJK16-1300	24.0	30.0	3.0	10.2	20 AWG/Φ0.8	2
BJK16-1400	24.0	30.0	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  $\pm 0.75\text{mm}$ .

### 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
SolventResistance	MIL-STD-202, Method 215F	No change
Vibration	MIL-STD-202, Method 201	No change

**6. ELECTRICAL SPECIFICATIONS**

## Electrical Characteristics

Model	I <sub>H</sub> (A)	I <sub>T</sub> (A)	V <sub>max</sub>	I <sub>max</sub>	P <sub>d</sub>	Maximum Time-to-Trip		Resistance (mΩ)	
			V <sub>(DC)</sub>	A	W	Current (A)	Time (S)	R <sub>min</sub>	R <sub>max</sub>
BJK16-010(T)	0.1	0.3	16	100	0.38	0.5	5	1500	7500
BJK16-025(T)	0.25	0.5	16	100	0.45	1.25	5	500	1950
BJK16-030(T)	0.3	0.6	16	100	0.49	1.5	5	300	700
BJK16-050(T)	0.5	1.0	16	100	0.56	2.5	5	200	500
BJK16-075(T)	0.75	1.5	16	100	0.72	3.75	5	100	320
BJK16-090(T)	0.9	1.8	16	100	0.83	4.5	5	90	180
BJK16-110(T)	1.1	2.2	16	100	0.94	5.5	5	60	150
BJK16-135(T)	1.35	2.7	16	100	1.2	6.75	5	40	130
BJK16-160(T)	1.6	3.2	16	100	1.4	8	5	40	110
BJK16-200(T)	2	4	16	100	2.2	6	15	35	75
BJK16-300	3	6	16	100	2.3	9	15	20	60
BJK16-400	4	8	16	100	2.4	12	15	20	40
BJK16-500	5	10	16	100	2.6	15	15	14	25
BJK16-600	6	12	16	100	2.8	18	15	10	21
BJK16-700	7	14	16	100	3.0	21	15	8	15
BJK16-800	8	16	16	100	3.0	24	15	6	13
BJK16-900	9	18	16	100	3.3	27	25	4	12
BJK16-1000	10	20	16	100	3.7	30	30	4	11
BJK16-1100	11	22	16	100	3.7	33	30	3	9
BJK16-1200	12	24	16	100	4.2	36	30	3	8
BJK16-1300	13	26	16	100	4.2	39	50	3	8
BJK16-1400	14	28	16	100	4.2	40	50	3	7

I<sub>H</sub>=Hold current:Maximum current at which the device will not interrupt in 25°C still air.

I<sub>T</sub>=Trip current:Minimum current at which the device from low resistance to high resistance in 25°C still air.

V<sub>max</sub>=Maximum continuous voltage device can withstand without damage at rated current.

I<sub>max</sub>=Maximum fault current device can withstand without damage at rated voltage.

Maximum Time-to-trip:Maximum time to trip at assigned current.

P<sub>d</sub>=Typical power dissipation:Typical amount of power dissipated from the device when in 25°C still air environment.

R<sub>min</sub>=Minimum resistance of device at 25°C prior to tripping.

R<sub>max</sub>=Maximum 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
JK16-010(T)	0.14	0.13	0.12	0.1	0.09	0.08	0.08	0.07	0.06	0.04
JK16-025(T)	0.37	0.33	0.3	0.25	0.24	0.22	0.2	0.17	0.15	0.11
JK16-030(T)	0.44	0.39	0.36	0.3	0.28	0.26	0.24	0.21	0.18	0.14
JK16-050(T)	0.74	0.66	0.6	0.5	0.48	0.44	0.4	0.35	0.30	0.23
JK16-075(T)	1.11	0.99	0.9	0.75	0.72	0.66	0.6	0.53	0.45	0.35
JK16-090(T)	1.33	1.18	1.08	0.9	0.86	0.79	0.72	0.63	0.54	0.42
JK16-110(T)	1.62	1.45	1.32	1.1	1.05	0.96	0.88	0.78	0.67	0.51
JK16-135(T)	1.99	1.78	1.62	1.35	1.29	1.18	1.08	0.95	0.82	0.63
JK16-160(T)	2.36	2.11	1.92	1.6	1.53	1.40	1.28	1.13	0.97	0.75
JK16-200(T)	2.96	2.64	2.4	2	1.92	1.76	1.6	1.42	1.22	0.94
JK16-300	4.44	3.96	3.6	3	2.88	2.64	2.4	2.13	1.83	1.41
JK16-400	5.92	5.28	4.8	4	3.84	3.52	3.2	2.84	2.44	1.88
JK16-500	7.4	6.6	6	5	4.8	4.4	4	3.55	3.05	2.35
JK16-600	8.88	7.92	7.2	6	5.76	5.28	4.8	4.26	3.66	2.82
JK16-700	10.36	9.24	8.4	7	6.72	6.16	5.6	4.97	4.27	3.29
JK16-800	11.84	10.56	9.6	8	7.68	7.04	6.4	5.68	4.88	3.76
JK16-900	13.32	11.88	10.8	9	8.64	7.92	7.2	6.39	5.49	4.23
JK16-1000	14.8	13.2	12	10	9.6	8.8	8	7.1	6.1	4.7
JK16-1100	16.28	14.52	13.2	11	10.56	9.68	8.8	7.81	6.71	5.17
JK16-1200	17.76	15.84	14.4	12	11.52	10.56	9.6	8.52	7.32	5.64
JK16-1300	19.24	17.16	15.6	13	12.48	11.44	10.4	9.23	7.93	6.11
JK16-1400	20.72	18.48	16.8	14	13.44	12.32	11.2	9.94	8.54	6.58

## 7.SOLDERING PARAMETERS

### Wave-soldering Recommendation

#### Wave Soldering

Soldering Temperature: 245°C~260°C

Soldering Time: ≤5sec

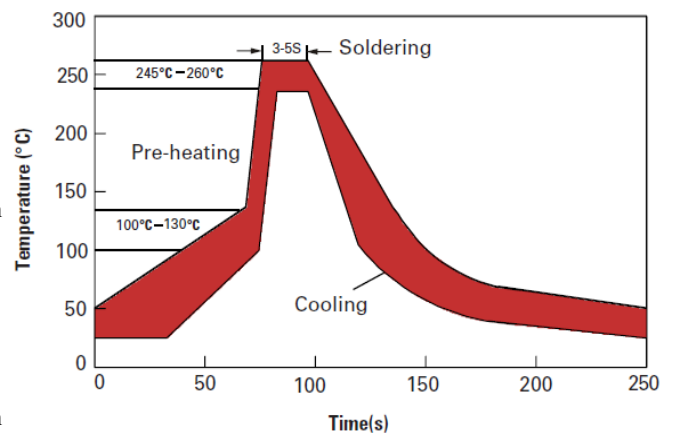
Soldering Position: Resettable fuse lead and the distance from the bottom ≥ 6mm

#### Manual soldering

Soldering Temperature: 250°C~280°C

Soldering Time: ≤3sec

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



## 8.Standard Package

BJK16-010(T)~BJK16-600 1000Pcs/Bag or 2000Pcs/Box

BJK16-700~BJK16-900 500 Pcs/Bag

BJK16-1000~BJK16-1400 200 Pcs/Bag



## 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.

## 9. 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.
BJK16				