

DATA SHEET

SMD 0603 SLOW BLOW FUSE JB06S Series

RoHS compliant & Halogen free



Product specification— June 25, 2023 V.0



[illegible]

JB06S Series DataSheet

Scope

This specification is applicable to over-current protection thick film fuse for 0603 slow blow series produced by YAGEO corporation.

Applications

- TFT Displays
- Battery Management System (BMS)
- LED Head - Lights

Features

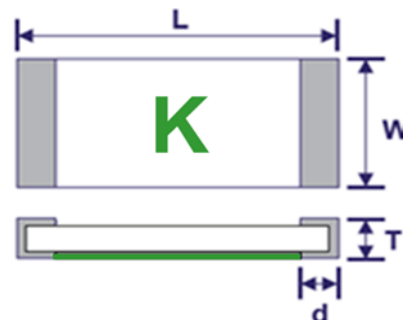
- Small Size, 0603 SMD
- Operating temperature -55°C to 125°C
- Excellent long-term stability
- Halogen Free
- Lead Free

Agency Approval

Agency	File Number	Ampere Range
	E531845	0.5A-8A

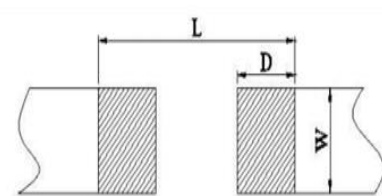
Dimensions

Series	L (mm)	W (mm)	T (mm)	d (mm)
JB06S	1.60±0.15	0.81±0.15	0.48±0.08	0.35±0.20



Recommended Land Patterns

Series	L (mm)	W (mm)	D (mm)
JB06S	2.2	1.0	0.7



Ordering Information

Part Number	Current Rating (A)	Voltage Rating (Vdc)	Interrupting	Typical DCR (mΩ) ¹	Typical I ² t (A ² s) ²	Marking
JB06S5000R	0.50A	63Vdc	50A@63Vdc	580	0.02	F
JB06S7500R	0.75A			400	0.04	G
JB06S1001R	1.0A			250	0.10	B
JB06S1501R	1.5A			150	0.22	H
JB06S2001R	2.0A	32Vdc	50A@32Vdc	78	0.31	K
JB06S2501R	2.5A			49	0.52	L
JB06S3001R	3.0A			35	0.89	O
JB06S3501R	3.5A			28	1.04	R
JB06S4001R	4.0A			18	2.01	S
JB06S5001R	5.0A			14	3.10	T
JB06S6001R	6.0A			11	5.03	V
JB06S7001R	7.0A			9.5	6.24	X
JB06S8001R	8.0A			7	8.35	Z

NOTE: 1. Measured at ≤10% rated current and 25°C

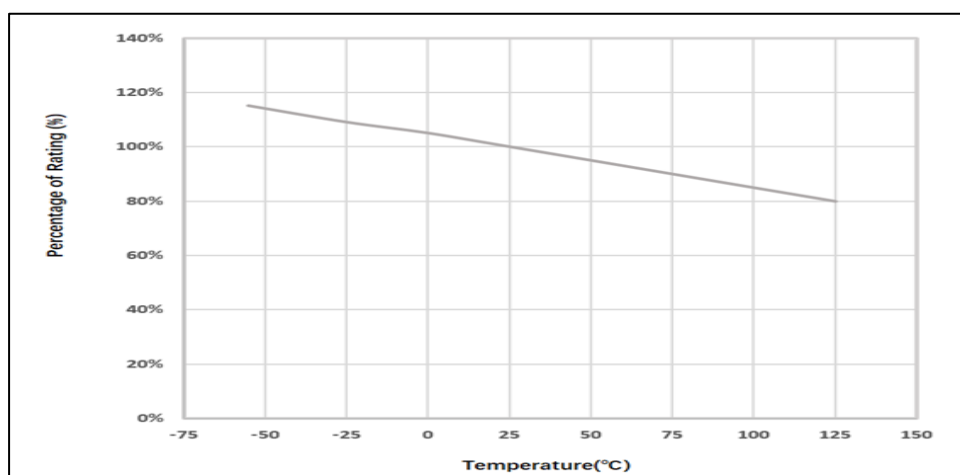
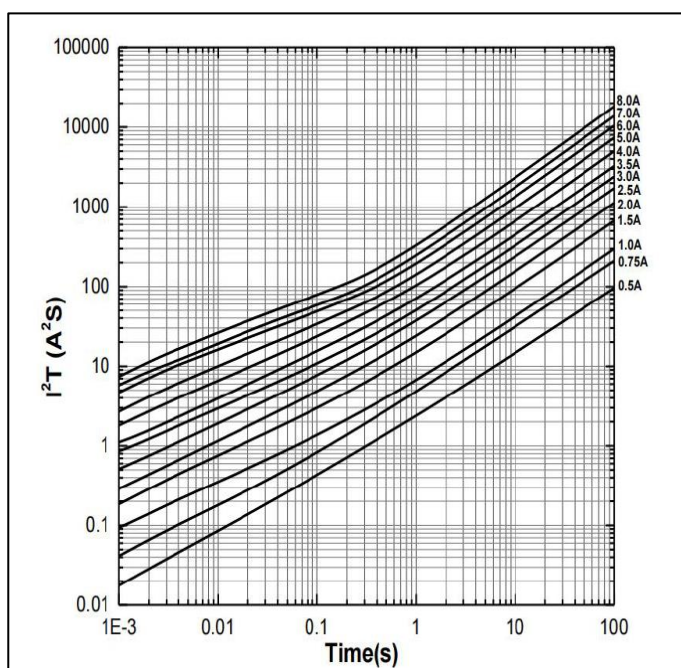
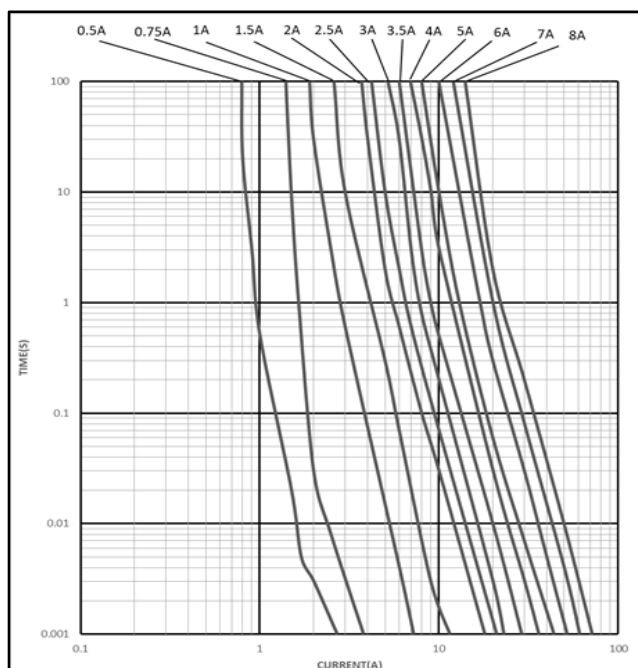
2. Nominal Melting I²t measured at 0.001s opening time

SMD 0603 Slow Blow Fuse**JB06S Series****Clearing Time Characteristics**

Rated Current	% of Current Rating	Clearing Time at 25°C	
		Min	Max
0.5A-8.0A	100%	4hours	/
0.5A-8.0A	200%	1s	120s
0.5A-8.0A	350%	/	3s

Part Number Code Rule

J	B	06	S	1001	R
Product Code	Product Type	Size Type	Fusing Type	Current Rating	Package
J:Fuse	B: Thick Film	06:0603	S: Slow Blow	5000:0.5A 1001:1A	R:Tape and Reel B: Bulk

Temperature Derating Curve**Time & Current Curve****I²t & Time Curve**

SMD 0603 Slow Blow Fuse

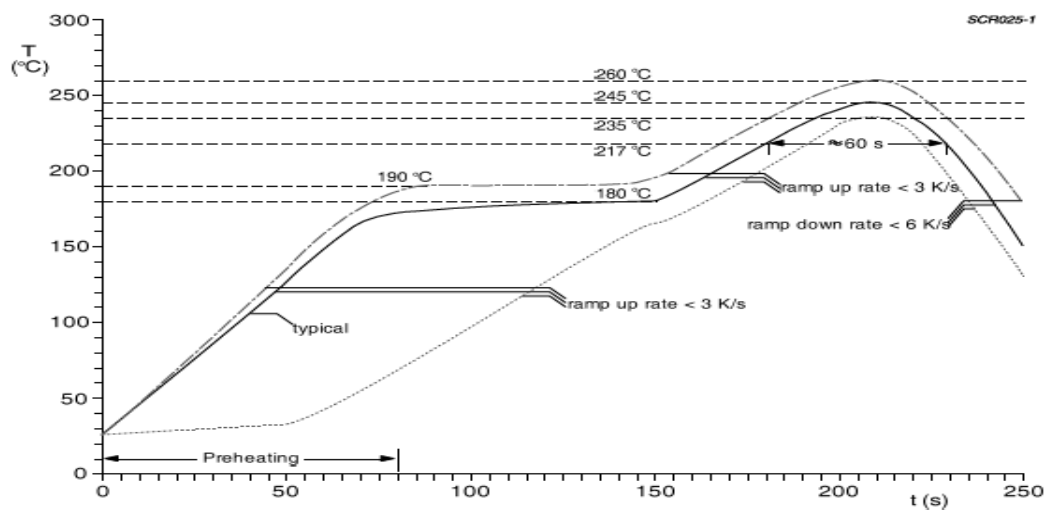
JB06S Series

Reliability Test Performance

Item	Test condition/ Methods	Performance	Standard
Time/Current Characteristics	100% Rated Current	No fusing within 4hr	UL248-14
	200% Rated Current	0.5A-8.0A: Min:1s;Max:120s	Refer to clearing time characteristics
	350% Rated Current	0.5A-8.0A: Max:3s	
Breaking Capacity	0.5A-1.5A: 50A@63Vdc 2.0A-8.0A: 50A@32Vdc	No a permanent arcing, ignition, bursting	UL248-14
Solderability	T=245°C±5°C, t=5s±0.5s	Cover ≥95%	MIL-STD-202 Method 208
Resistance to Soldering	Pre-heating:145°±15°C, max.120s Peak: 260°C, max.10s Reflow cycle: 2 times After immersion into solder, leaving the room temp. for 1h or more, and then measure the internal resistance.	△R<15% No crack and damage, Marking is easily legible	MIL-STD-202, Method 210F
Thermal Shock	-65°C, 15min→25°C, 5min→+125°C, 15min ; 100 cycles	△R<10% No crack and damage,	MIL-STD-202, Method 213B
Mechanical Shock	a=100G for 11ms, 5pulses	△R<10% No crack and damage	MIL-STD-202, Method 213B
Vibration	Frequency range:10~15~10Hz/min Vibration amplitude:1.5mm	△R<10% No mechanical damages	MIL-STD-202, Method 201A
Salt Spray	5% salt solution, 48hr	△R<10% Legible appearance	MIL-STD-202, Method 101
Board Flex	Bending:1mm, time:60s	△R<15% No mechanical damages	IEC 60127-4

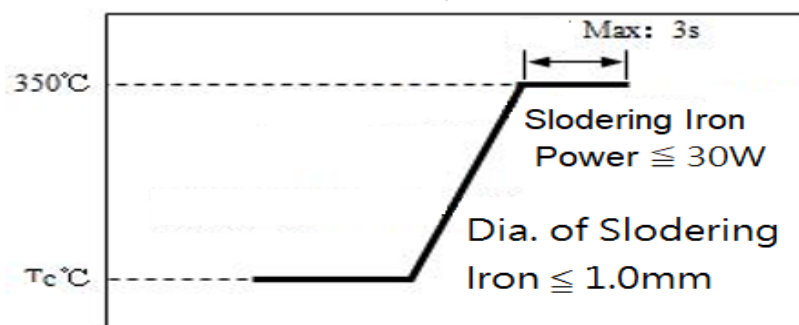
Soldering Condition

Recommend Re-Flowing Profile



Item	Condition
Ramp	<3° C/sec.
Pre-heating	145 ± 15° C, 120s max.
Time above 220° C	60s max.
Peak temperature	260° C/10s max.

Recommend Soldering tip Temperature



Item	Condition
Iron soldering power	Max. 30W
Pre-heating time	60sec, 150° C
Soldering tip temperature	Max. 350° C
Soldering time	Max. 3sec

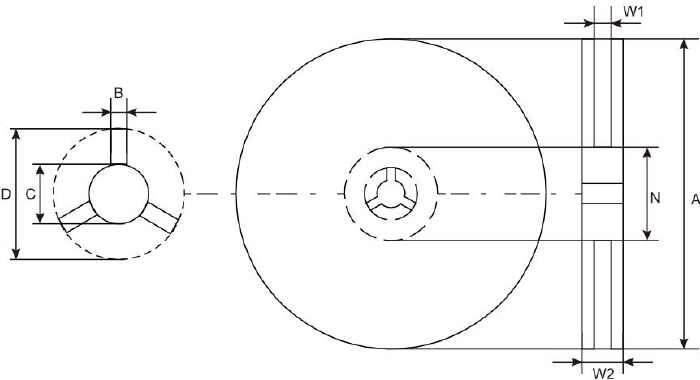
Note: Take care not to apply the tip of the soldering iron to the terminal electrodes.

Packaging Specification

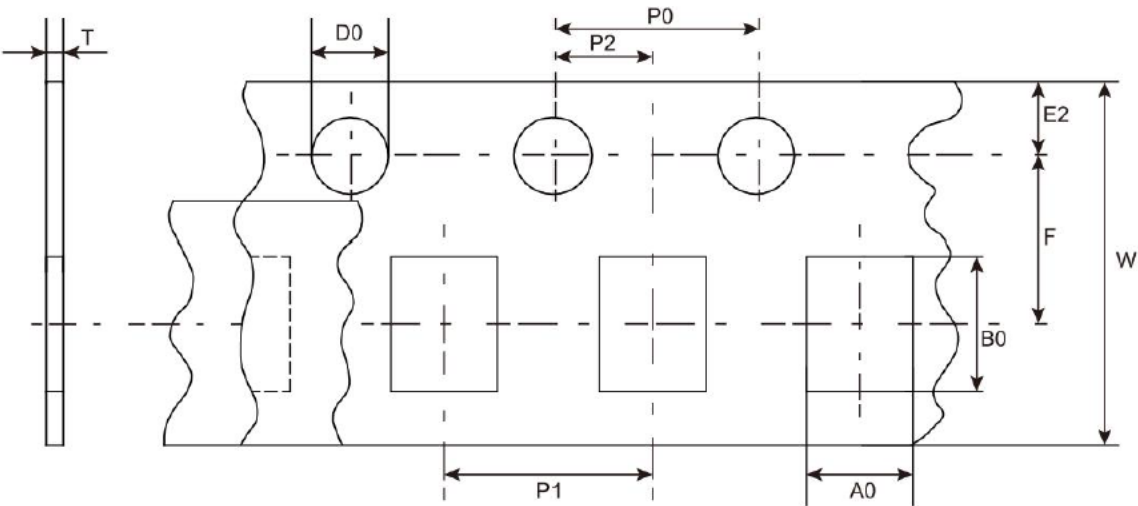
Quantity & Weight

Series	Quantity
JB06S	5000pcs/Reel

Reel & Tape Specification



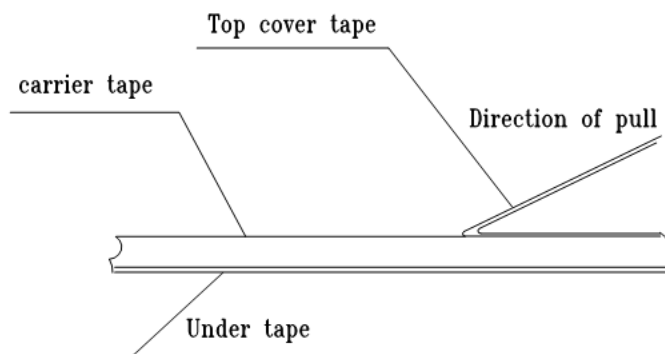
Series	A (mm)	B (mm)	C (mm)	D (mm)	N (mm)	W1 (mm)	W2 (mm)
JB06S	178±5	1.6 Min.	12.8 Min.	20.8 Min.	58±2	8.4 Min.	12.4 Max.



Series	A0 (mm)	B0 (mm)	D0 (mm)	E2 (mm)	F (mm)	P0 (mm)
JB06S	1.10±0.05	1.90±0.05	1.55±0.05	1.75±0.10	3.50±0.05	4.00±0.10
	P1 (mm)	T (mm)	W (mm)			
	4.00±0.10	0.60±0.05	8.00±0.10			

SMD 0603 Slow Blow Fuse**JB06S Series****■ Peeling Strength of Seal Tape**

The top cover tape is pulled at a speed of 300 mm/min with the angle between the tape during peel and the direction of unreeling maintained at 165 to 180 degree as following picture. The peel force of paper carrier tape shall be 0.1N to 0.7N(10 to 70 g)

**Storage Conditions**

- Storage Temperature: 10°C~+40°C
- Relative Humidity: ≤75%RH
- Keep away from corrosive atmosphere and sunlight.
- Period of Storage: 2 year.

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