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Innovative Service Around the Globe YAGEO

DATA SHEET

SMD 1206 FAST ACTING FUSE

JB12F Series

RoHS compliant & Halogen free







Product specification– January 20, 2026 V.2

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REVISED RECORD SHEET

REV.#	PAGES	REV.DATE	REVICED CONTENT
A0	1-7	2022-09-05	Initial version
A1	P3;P11	2023-06-21	P11.add disclaimer.P3.revised typical DCR&I^2t .
A2	P3	2026-1-14	P3. Add S dimension

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JB12F Series DataSheet

Scope

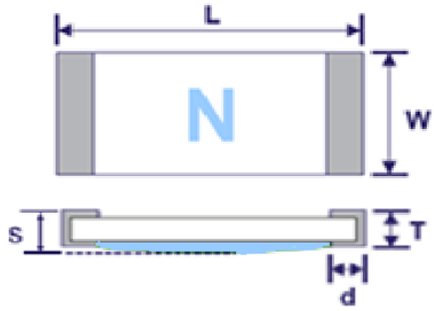
This specification is applicable to over-current protection thick film fuse for 1206 fast acting series produced by YAGEO corporation.

Applications

- LCD Displays
- Battery Packs
- Hard Disk Drives

Dimensions

Series	L (mm)	W (mm)	T (mm)	d (mm)	S (mm)
JB12F	3.20±0.20	1.60±0.20	0.65±0.20	0.50±0.20	0.75±0.20



Features

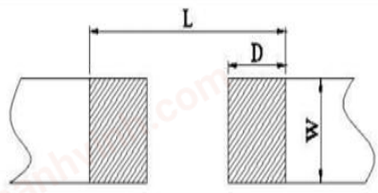
- Small Size,1206 SMD
- Operating temperature -55℃ to 125℃
- Excellent long-term stability
- Halogen Free
- Lead Free

Agency Approval

Agency	File Number	Ampere Range
cULus	E531845	0.5A-40A

Recommended Land Patterns

Series	L (mm)	W (mm)	D (mm)
JB12F	4.56	2.03	1.52



Ordering Information

Part Number	Current Rating (A)	Voltage Rating (Vdc)	Interrupting	Typical DCR (mΩ)[1]	Typical I^2t (A^2s)[2]	Marking
JB12F5000R	0.50A	63Vdc	50A@63Vdc	1029	0.008	0.5
JB12F7500R	0.75A			850	0.028	.75
JB12F1001R	1.0A			240	0.095	H
JB12F1501R	1.5A			125	0.24	K
JB12F2001R	2.0A			80	0.48	N
JB12F2501R	2.5A			38	0.91	O
JB12F3001R	3.0A			32	1.33	P
JB12F3501R	3.5A			25	1.74	R
JB12F4001R	4.0A			20	2.03	S
JB12F5001R	5.0A			13	3.98	T
JB12F6001R	6.0A			15.5	4.34	F
JB12F7001R	7.0A			11.5	5.26	7
JB12F8001R	8.0A			7.6	7.02	M
JB12F1002R	10A			5.5	12.5	U
JB12F1202R	12A	48Vdc	200A@48Vdc	5	18.4	12

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JB12F1502R	15A			3.4	22.8	15
JB12F2002R	20A			2.2	32.6	20
JB12F2502R	25A			1.5	48.9	25
JB12F3002R	30A			1.25	63.3	30
JB12F4002R	40A	36Vdc	200A@36Vdc	0.84	120.5	XL

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

2. Nominal Melting I2t measured at 0.001s opening time

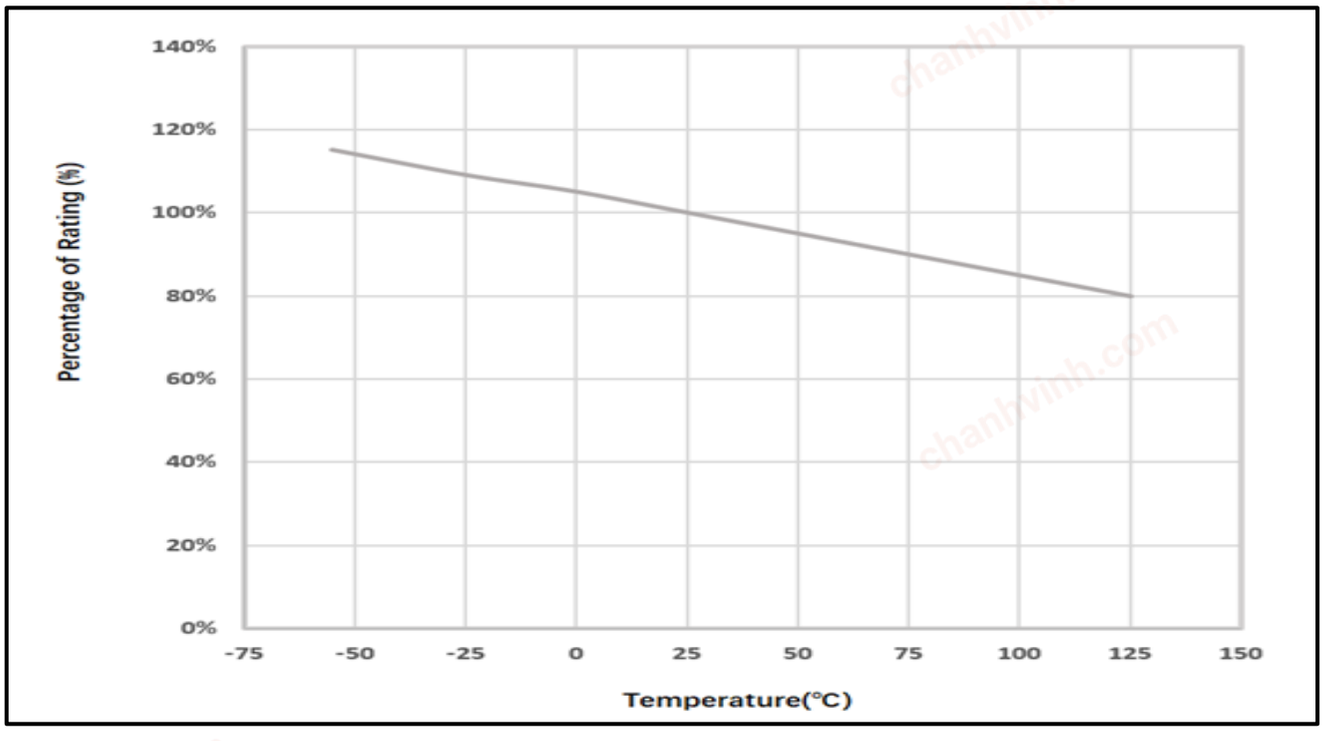
Clearing Time Characteristics

Rated Current	% of Current Rating	Clearing Time at 25℃	
		Min	Max
0.5A-40A	100%	4hours	/
0.5A-5.0A	200%	/	60s
6.0A-40A	300%	/	3s

Part Number Code Rule

J	B	12	F	1001	R
Product Code	Product Type	Size Type	Fusing Type	Current Rating	Package
J:Fuse	B: Thick Film	12:1206	F: Fast acting	5000:0.5A 1001:1A	R:Tape and Reel B:Bulk

Temperature Derating Curve



Time & Current Curve

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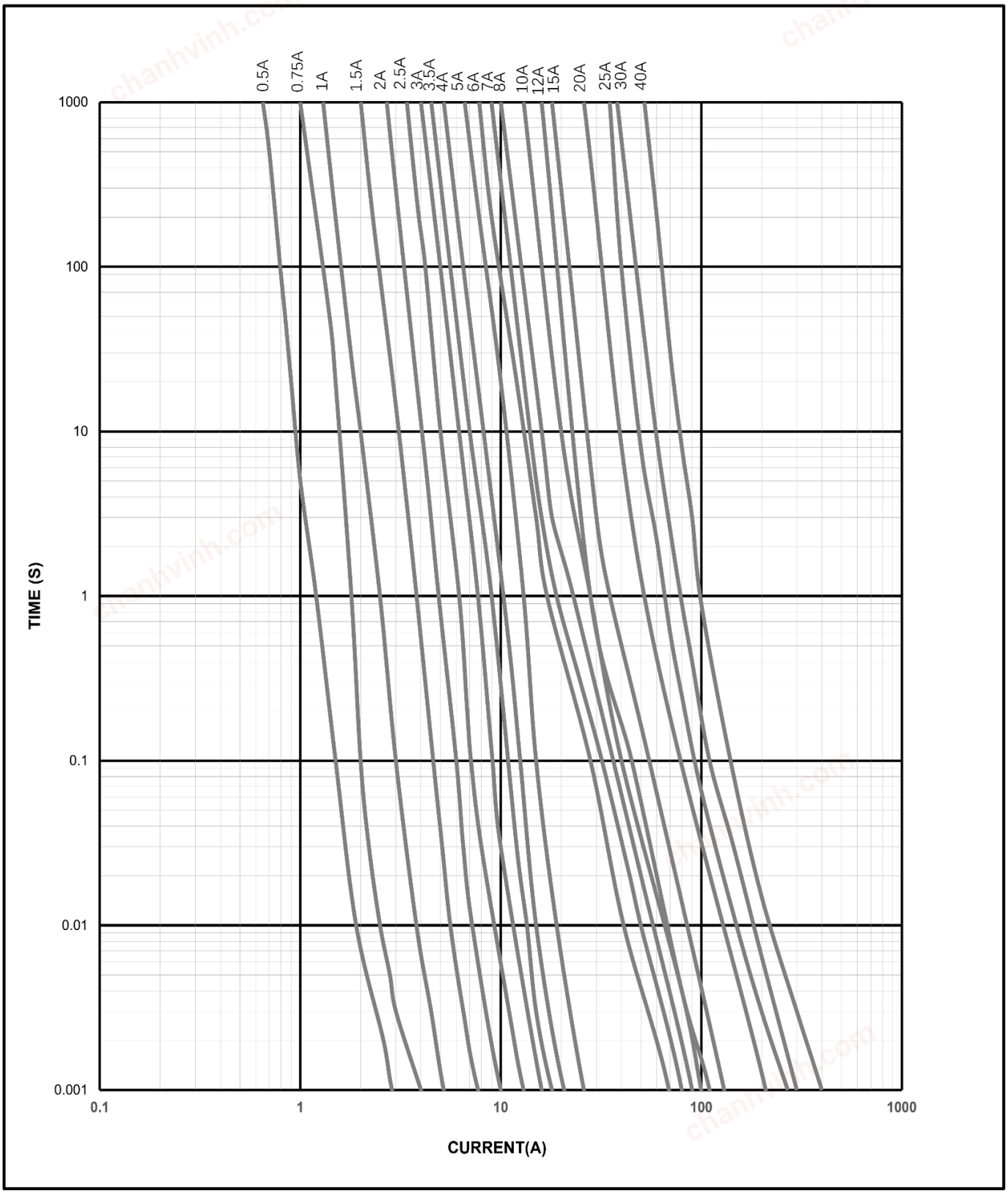

I^2t & Time Curve

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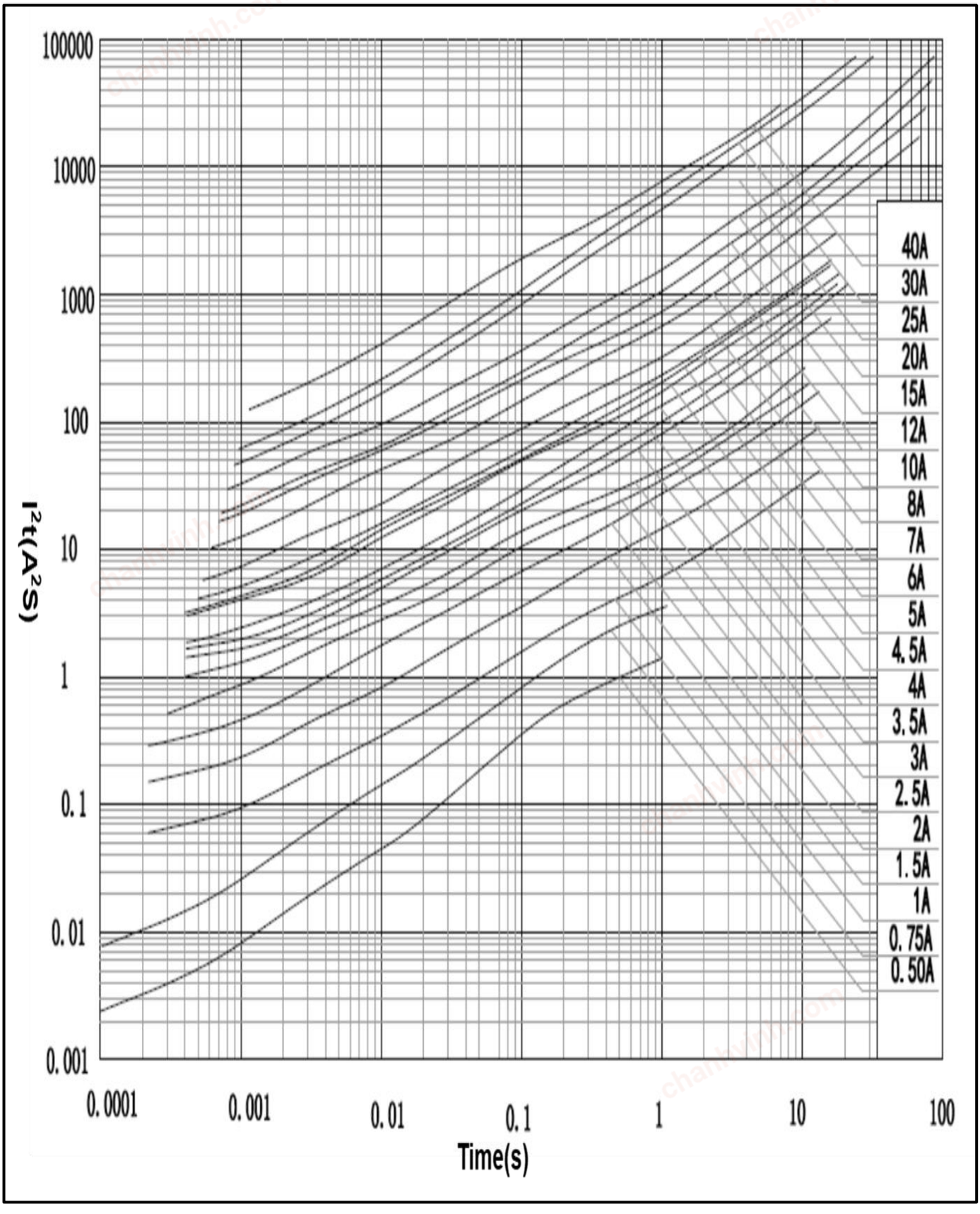

Reliability Test Performance

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Item	Test condition/ Methods	Performance	Standard
Time/Current Characteristics	100% Rated Current	No fusing within 4hr	UL248-14
	200% Rated Current	0.5A-5.0A：Max:60s	Refer to clearing time characteristics
	300% Rated Current	6.0A-40A:Max:3s	
Breaking Capacity	0.5A-10A: 50A@63Vdc 12A-30A: 200A@48Vdc 40A:200A@36Vdc	No a permanent arcing, ignition, bursting	UL248-14
Solderability	T=245℃±5℃，t=5s±0.5s	Cover ≧95%	MIL-STD-202 Method 208
Resistance to Soldering	Pre-heating:145°±15℃, 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℃,15min→25℃,5min→ +125℃,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

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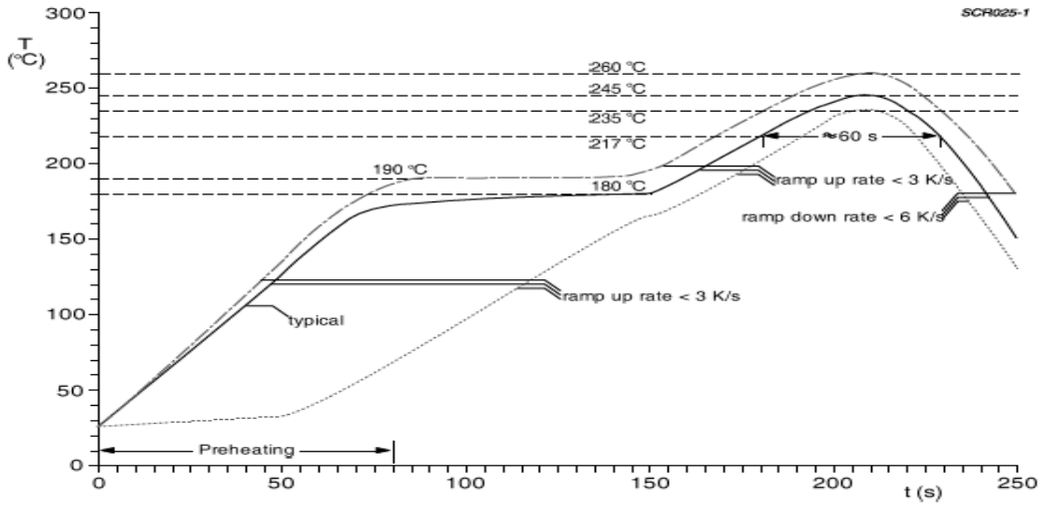
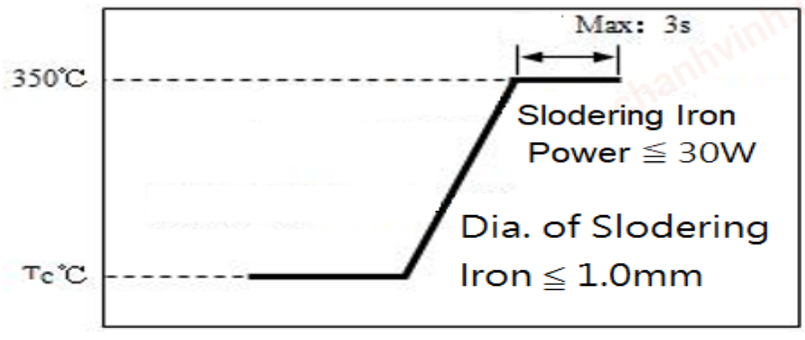
Recommend Re-Flowing Profile



Item	Condition
Ramp	<3° C/sec.
Pre-heating	145±15° C, 120s max.
Time above220° 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

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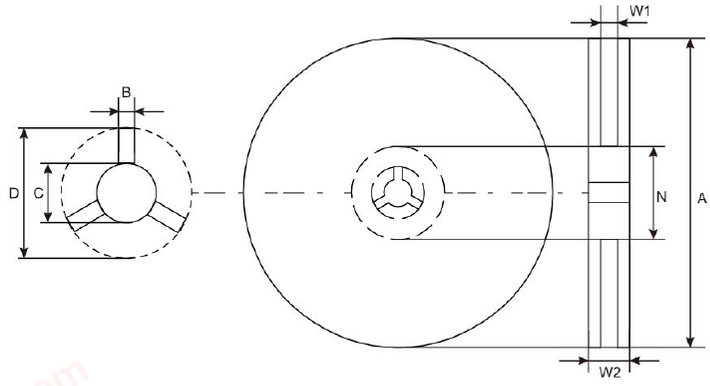
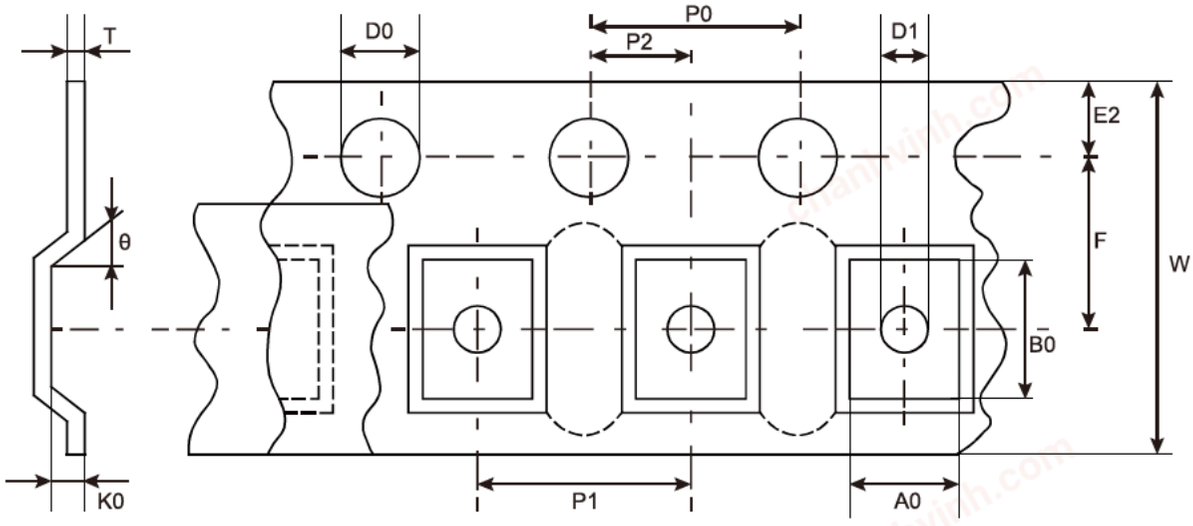
Quantity & Weight

Series	Quantity
JB12F	3000pcs/Reel

Reel & Tape Specification



Series	A (mm)	B (mm)	C (mm)	D (mm)	N (mm)	W1 (mm)	W2 (mm)
JB12F	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)	D1 (mm)	E2 (mm)	F (mm)	K0 (mm)
JB12F	1.92±0.10	3.62±0.10	$1.50^{+0.1}$	1.00 min.	1.75±0.10	3.50±0.05	0.87±0.10

P0 (mm)	P1 (mm)	P2 (mm)	T (mm)	W (mm)	θ (mm)
4.00±0.10	4.00±0.10	2.00±0.05	0.25±0.05	8.00±0.30	6^0 max.

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

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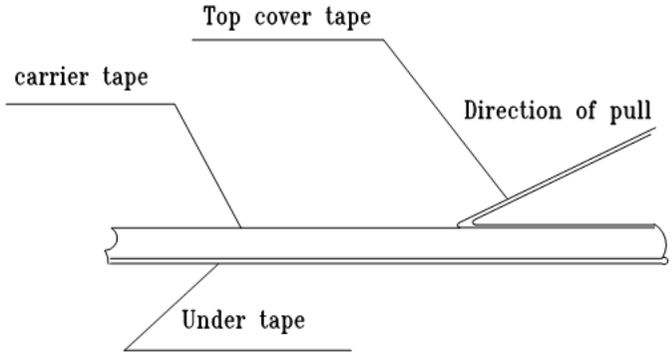
the direction of unreeling maintained at 165 to 180 degree as following picture. The peel force of paper carrier tape shall be 0.1N to 0.7N(10 to 70 g)



Storage Conditions

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

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