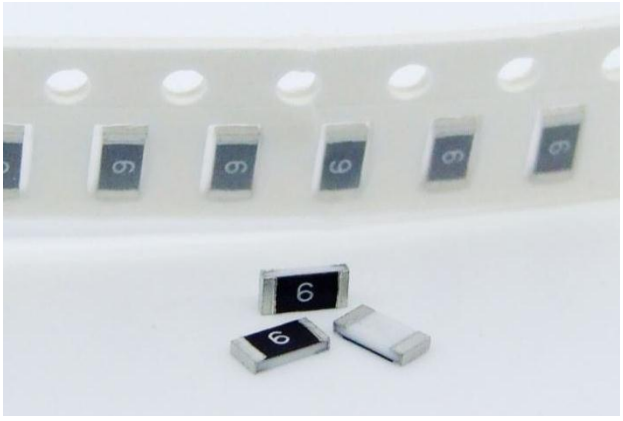


General

- Fast acting
- 3.10mm× 1.55mm physical size
- Thick film manufacturing method, ceramic substrate, silver fusing element
- -55℃~125℃ operating temperature
- Excellent environmental integrity
- RoHS compliant
- Halogen-free
- Lead free

Agency / Certificate Information

Agency	File Number	Ampere Range
c UL us	E319512	0.5A~7A

Application

- Battery pack
- PC related equipment and peripherals (Hard driver, Printer, etc.)
- Digital camera (Digital still camera)
- Game equipment
- LCD monitor, LCD modules
- Wireless base station
- Power supply
- Medical device

Electrical Specifications

Part Number	Marking	Current Rating (A)	Voltage Rating (V)	Interrupting Rating (V)	Typical Cold DCR* (mΩ)	Typical I^2T** (A^2s)
S1206-F-0.5A	F	0.5	32	50A 32V DC	1200	0.0075
S1206-F-0.75A	G	0.75	32		540	0.0169
S1206-F-1.0A	H	1.0	32		240	0.0279
S1206-F-1.5A	K	1. 5	32		115	0.0491
S1206-F-2.0A	N	2.0	32		64	0.1251
S1206-F-2.5A	O	2.5	32		33	0.1255
S1206-F-3.0A	P	3.0	32		27	0.2880
S1206-F-3.15A	Z	3.15	32		26	0.2977
S1206-F-3.5A	R	3.5	32		20.5	0.5366
S1206-F-4.0A	S	4.0	32	35A 32V DC	15.5	0.8928
S1206-F-5.0A	T	5.0	32		12.5	0.9325
S1206-F-6.0A	6	6.0	32		11.0	1.5192
S1206-F-7.0A	U	7.0	32		7.2	2.2050

* Measured at≤10% rated current and 25℃

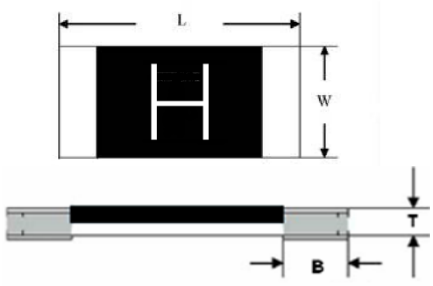
** Melting I^2T at 10 times of rated current

Part Number Information

S 1206–F–1.0A

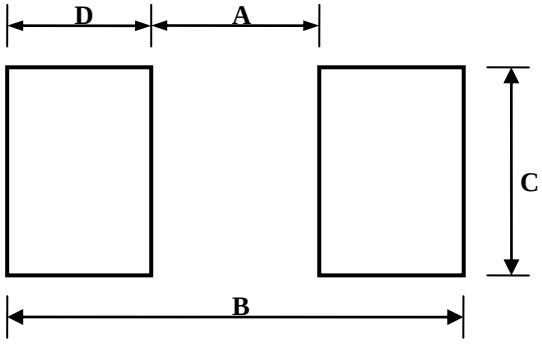
- "1.0A" Ampere Rating: 1A
- " F" Electrical Characteristic: F = Fast acting
- "1206" Size Number
- " S" Symbol of SART

Dimensions



Type	L (mm)	W (mm)	T (mm)	B (mm)
S1206-F	3.10±0.20	1.55±0.20	0.55±0.20	0.50±0.20

Recommended Land Patterns



Materials

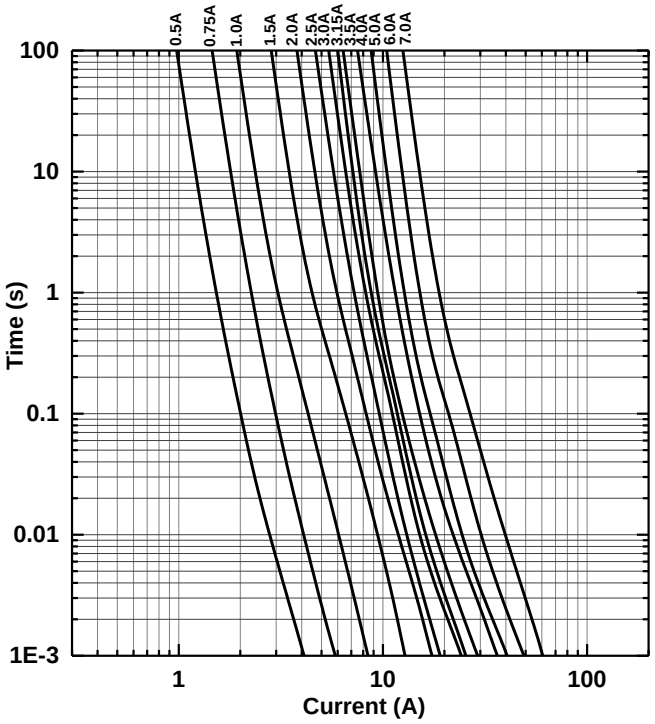
Components	Material
Body	Ceramic
Terminations	Silver over plated with tin (100%)
Element	Silver or Silver/Palladium

Dimensions	A(mm)	B(mm)	C(mm)	D(mm)
Spec	2.00±0.30	4.40±0.50	2.40±0.30	1.20±0.30

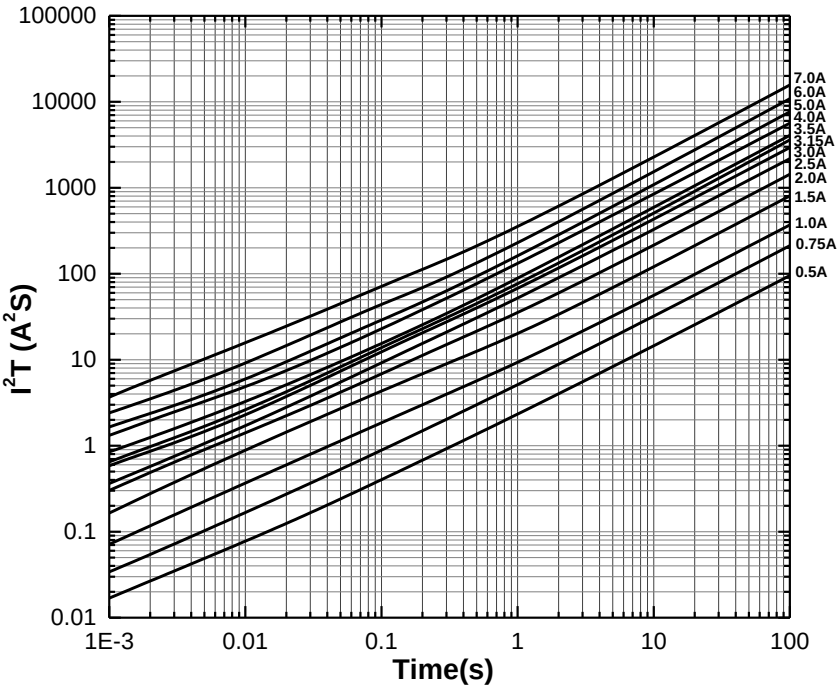
Dimensions of Standard Test Board

Type	Ampere Rating	Board Thickness (mm)	Copper Layer Thickness (mm)	Copper Trace Width (mm)
S1206-F	0.5A~6.0A	1.6	0.035	5.0
	7.0A	1.6	0.070	7.5

Time Current Curve



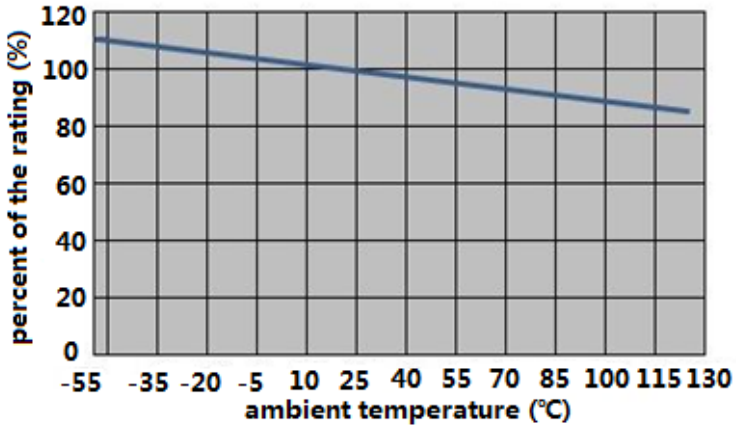
I^2T VS Time Curve



Electrical Characteristics

Type	Ampere Rating	% of Current Rating	Opening Time
S1206-F	0.5A~7.0A	100	＞4hours
	0.5A~0.75A	250	≤20sec
	1.0A~7.0A	250	≤5sec
	0.5A~7.0A	1000	＞0.1ms

Temperature Derating Curve

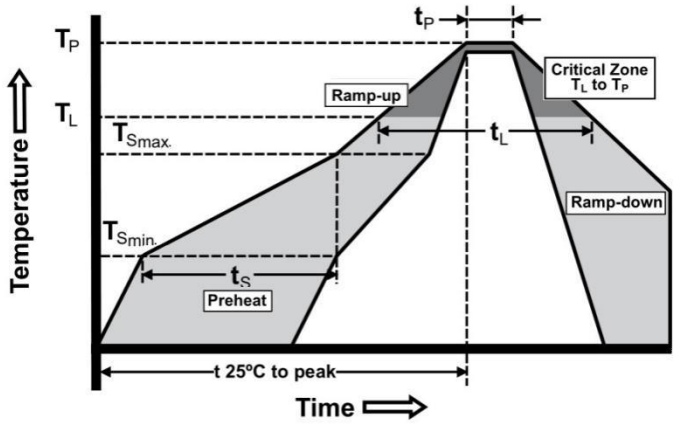


Product Characteristics

Item	Test condition/ Methods	Performance	Standard
Time/Current	100% of current rating	No Fusing, 4hours Min.	UL248-14
	250% of current rating	0.5A~0.75A:≤20sec 1.0A~7.0A:≤5sec	SART SPEC.
	1000% of current rating	＞0.1ms	IEC60127-4
Voltage Drop	100% of current rating	Deviation between the mean value: ＜15%	IEC60127-4
Temperature Rise	100% of current rating	ΔT＜75℃	IEC60127-4
Endurance Test	100 cycles of 1In for 1h “ON”, for 15min “OFF”, then following by 1h at 125%In	|ΔR|:＜10%	IEC60127-4
Interrupting Ability	0.5A~3.5A: 50A 32V DC 4.0A~7.0A: 35A 32V DC	without permanent arcing, ignition and bursting of fuse link	UL248-14 IEC60127-4
Solderability	240℃±5℃, 3sec±0.5sec	95% coverage Min.	IEC60127-4 MIL-STD-202 Method 208
Resistance to Soldering	260℃±5℃, 10sec±0.5sec	|ΔR|:＜10% Legible appearance	MIL-STD-202 Method 210
Bending Test	Distance between holding points: 90mm Bending: 1mm, time: 10sec	|ΔR|:＜10% No mechanical damages	IEC60127-4
High Temperature Operating Life	T=70℃±2℃, 60%In, 96hours	|ΔR|: ＜10%; No fusing	MIL-STD-202 Method 108
Humidity (Steady State)	T=40℃±2℃, 90%～95%RH, 1000hours	|ΔR|: ＜10%	MIL-STD-202 Method 103
Low Temperature Storage	T=-55℃±3℃，96hours	|ΔR|: ＜10%	IEC60068-2-1
High Temperature Storage	T=125℃±2℃，96hours	|ΔR|: ＜10%	IEC60068-2-2
Salt Spray	5% salt solution，48hours	|ΔR|: ＜10% Legible appearance	MIL-STD-202 Method 101
Thermal Shock	100 cycles between -65℃/+125℃ 60 minutes, each extreme	|ΔR|: ＜10% No mechanical damages	MIL-STD-202 Method 107

Recommended Solder Curve

1. Infrared Reflow:
   - Temperature: 260℃
   - Time: 5sec Max.
   - Recommend Reflow profile



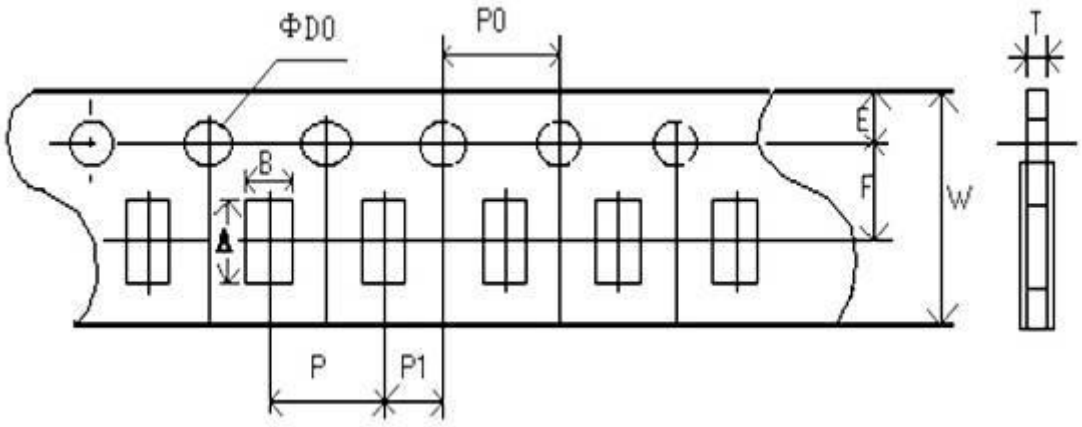
Profile Feature	Pb-Free Assembly
Average Ramp-up Rate(Ts_{max} to Tp)	3℃/sec Max.
Preheat Temperature Min.(Ts_{min}) Temperature Max.(Ts_{max}) Time(Ts_{min} to Ts_{max})	150℃ 200℃ 60sec~120sec
Peak Temperature(Tp)	260℃
Time within 5℃ of actual Peak Temperature(Tp)	5sec
Melting tin time(T_L)	20sec~30sec
Ramp-down Rate	6℃/sec Max.
Time 25℃ to peak Temperature	8minutes Max.

2. Wave soldering
   - Reservoir Temperature: 260℃
   - Time in Reservoir: 10secMax.

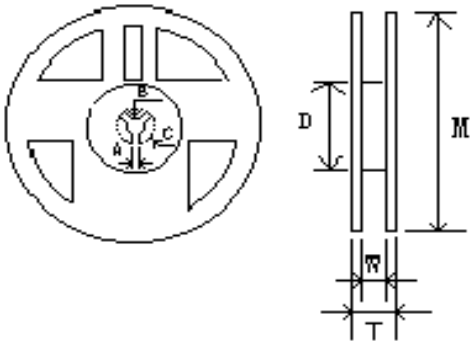
3.Hand Soldering
   - Temperature: 350℃
   - Time: 5secMax.

Packaging

- 5000 pieces of fuses in emboss taper and reeled on a 178mm(7 inch) reel.



Type	A(mm)	B(mm)	W(mm)	E(mm)	F(mm)
Spec	3.50±0.20	1.90±0.20	8.00±0.20	1.75±0.10	3.50±0.05
Type	P(mm)	P0(mm)	P1(mm)	D0(mm)	T(mm)
Spec	4.00±0.10	4.00±0.10	2.00±0.05	1.50±0.10	0.75±0.10



Type	M(mm)	W(mm)	T(mm)	A(mm)	B(mm)	C(mm)	D(mm)
Spec	178.00±2.00	9.50±1.00	12.50±1.50	2.00±0.50	13.00±0.50	21.00±0.50	58.00±2.00

Storage

- The ambient temperature recommended for storage shall be between 5℃~30℃
- The relative humidity recommended for storage shall be between 25%RH~60%RH
- Sealed plastic bags with desiccant shall be used to reduce the oxidation of the termination and shall only be opened prior to use
- The products shall not be stored in areas where harmful gases containing sulfur or chlorine are present