



### General

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

### Agency / Certificate Information

Agency	File Number	Ampere Range
	E319512	8A~15A

### 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

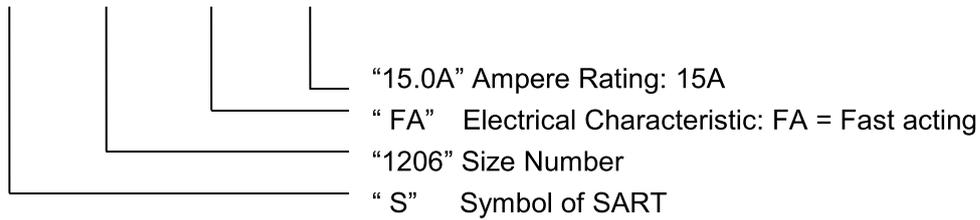
Part Number	Marking	Current Rating (A)	Voltage Rating (V)	Interrupting Rating (V)	Typical Cold DCR* (mΩ)	Typical I <sup>2</sup> T** (A <sup>2</sup> sec)
S1206-FA-8.0A	8	8.0	32	150A 32V DC	6.7	16.2
S1206-FA-10.0A	10	10.0	32		5.2	20.0
S1206-FA-12.0A	12	12.0	32		3.6	28.8
S1206-FA-15.0A	15	15.0	32		2.3	80.0

\* Measured at ≤10% rated current and 25°C

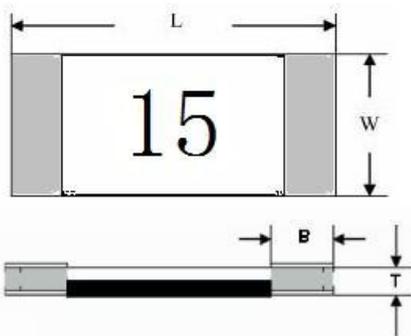
\*\* Melting I<sup>2</sup>T at 10 times of rated current

**Part Number Information**

**S 1206-FA-15.0A**

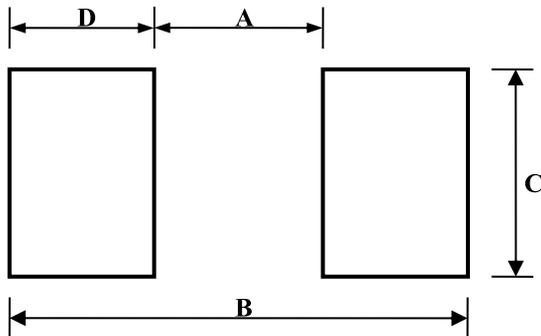


**Dimensions**



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

**Recommended Land Patterns**



Dimensions	A(mm)	B(mm)	C(mm)	D(mm)
Spec	1.60±0.10	3.80±0.10	2.20±0.10	1.10±0.10

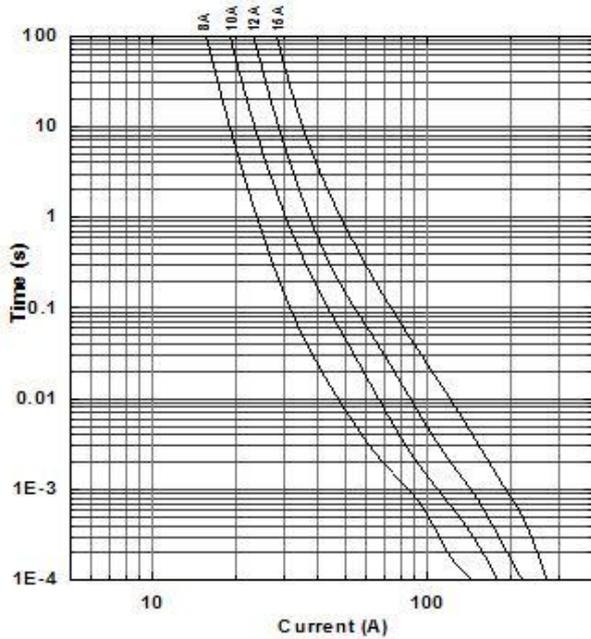
**Materials**

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

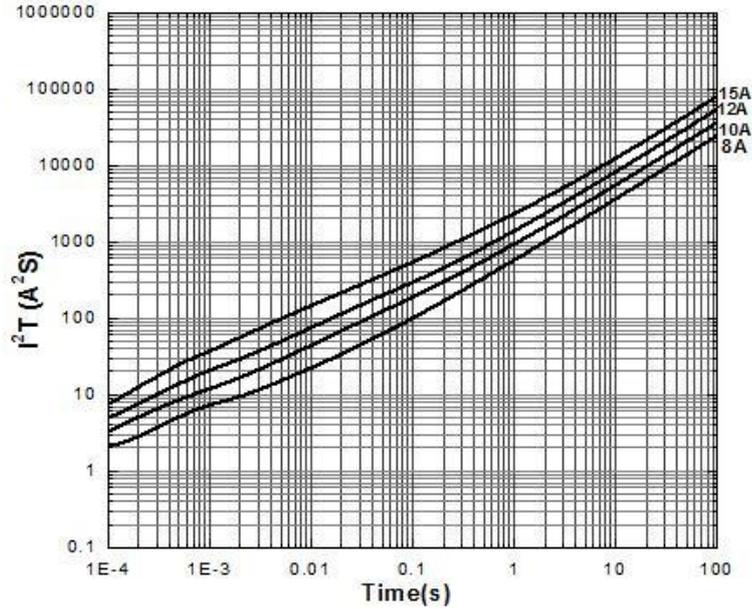
**Dimensions of Standard Test Board**

Type	Ampere Rating	Board Thickness (mm)	Copper Layer Thickness (mm)	Copper Trace Width (mm)
S1206-FA	8.0A~10.0A	1.6	0.070	7.5
	12.0A~15.0A	1.6	0.080	10.0

Time Current Curve



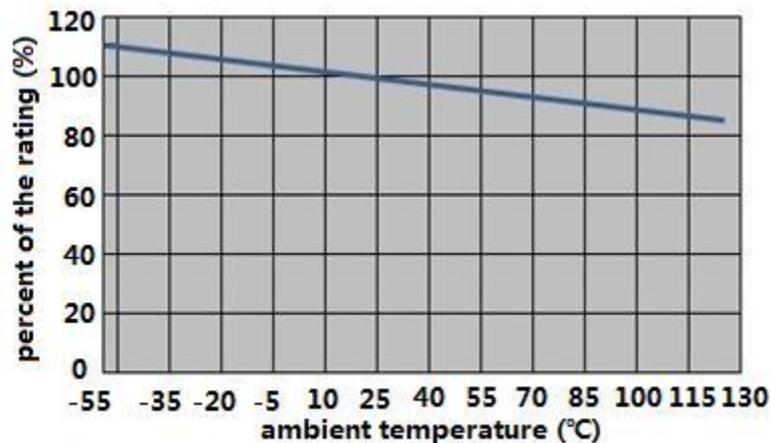
I<sup>2</sup>T VS Time Curve



Electrical Characteristics

Type	Ampere Rating	% of Current Rating	Opening Time
S1206-FA	8.0A~15.0A	100	4hours Min.
	8.0A~15.0A	350	5sec Max.

Temperature Derating Curve



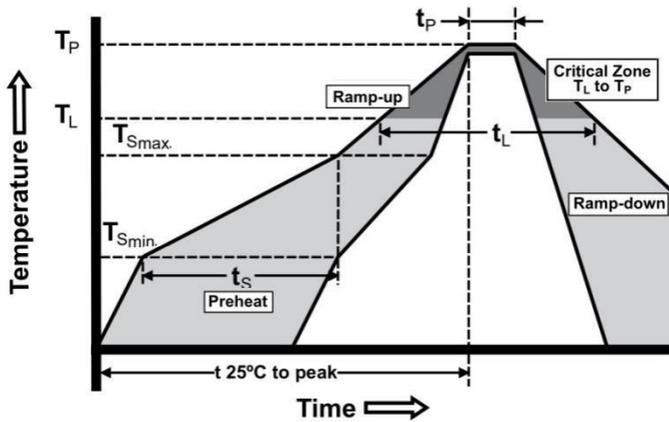
## Product Characteristics

Item	Test condition/ Methods	Performance	Standard
Time/Current	100% of current rating	No Fusing, 4hours Min.	UL248-14
	350% of current rating	≤5sec	SART SPEC.
Voltage Drop	100% of current rating	Deviation between the mean value: < 15%	IEC60127-4
Temperature Rise	100% of current rating	ΔT<95℃	IEC60127-4
Interrupting Ability	150A 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°C
- Time: 20sec Max.
- Recommend Reflow profile



Profile Feature	Pb-Free Assembly
Average Ramp-up Rate( $T_{Smax}$ to $T_P$ )	3°C/sec Max.
Preheat Temperature Min.( $T_{Smin}$ )	150°C
Temperature Max.( $T_{Smax}$ )	200°C
Time( $T_{Smin}$ to $T_{Smax}$ )	60sec~120sec
Peak Temperature( $T_P$ )	260°C
Time within 5°C of actual Peak Temperature( $t_P$ )	20sec
Melting tin time( $t_L$ )	60sec~150sec
Ramp-down Rate	6°C/sec Max.
Time 25°C to peak Temperature	8minutes Max.

### 2. Wave soldering

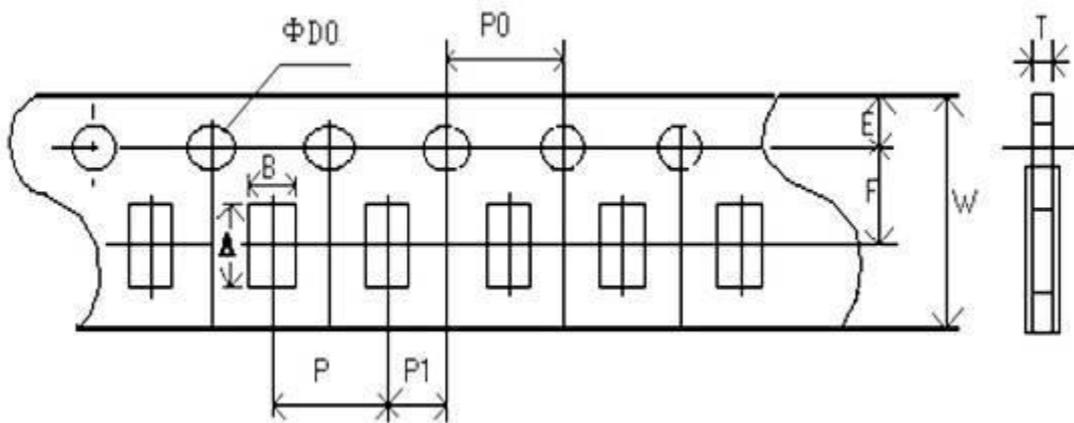
- Reservoir Temperature: 260°C
- Time in Reservoir: 10secMax.

### 3. Hand Soldering

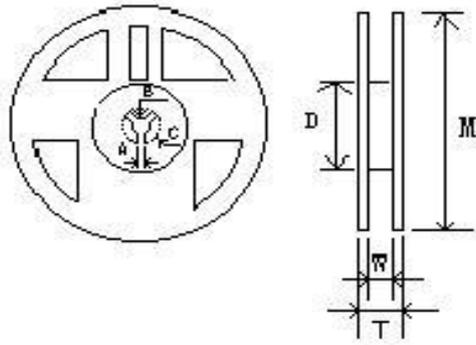
- Temperature: 350°C
- Time: 5secMax.

## 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)
S1206-FA	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)
S1206-FA	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)
S1206-FA	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°C~30°C
- 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