


General

- Fast Acting
- 3.10mm×1.55mm physical size
- Thick film manufacturing method, ceramic substrate, silver fusing element
- -50℃~125℃ operating temperature
- Excellent environmental integrity
- RoHS compliant
- Halogen-free

Agency / Certificate Information

Agency		
Agency	File Number	Ampere Range
	JDYX2.E319512	8A~15A
	JDYX8.E319512	8A~15A

Application

- Battery pack
- PC related equipment and peripherals (Hard driver, Printer, etc.)
- Portable devices (Mobile phone, PDA battery charger, etc.)
- Digital camera (Digital still camera)
- Game equipment
- LCD monitor, LCD modules
- Wireless base station

Ordering Information

Part Number	Marking	Current Rating (A)	Voltage Rating	Interrupting Rating	Max Cold DCR* (Ω)	Typical I ² T** (A ² S)
S1206-FA-8.0A	8	8.0	32V DC	150A/32V DC	0.009	9.6
S1206-FA-10.0A	10	10.0	32V DC	150A/32V DC	0.007	15.0
S1206-FA-12.0A	12	12.0	32V DC	150A/32V DC	0.005	20.0
S1206-FA-15.0A	15	15.0	32V DC	150A/32V DC	0.004	33.7

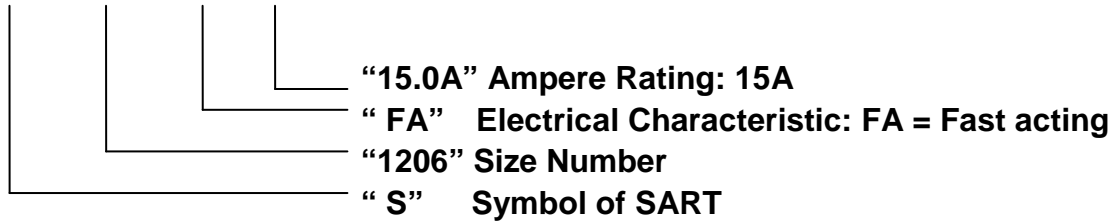
* Measured at ≤10% rated current and 25℃

** Melting I²T at 10 times of rated current

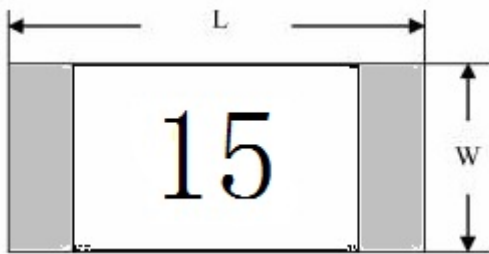
*** Fuse mounted on board with 3-oz Cu trace

Catalog Symbol

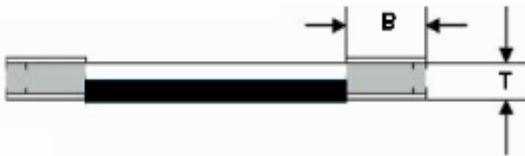
S 1206-FA-15.0A



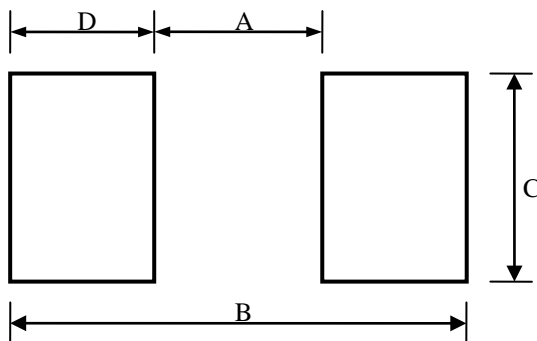
Dimensions



L(mm)	W(mm)	T(mm)	B(mm)
3.10±0.20	1.55±0.20	0.55±0.20	0.50±0.20



Recommended Land Patterns

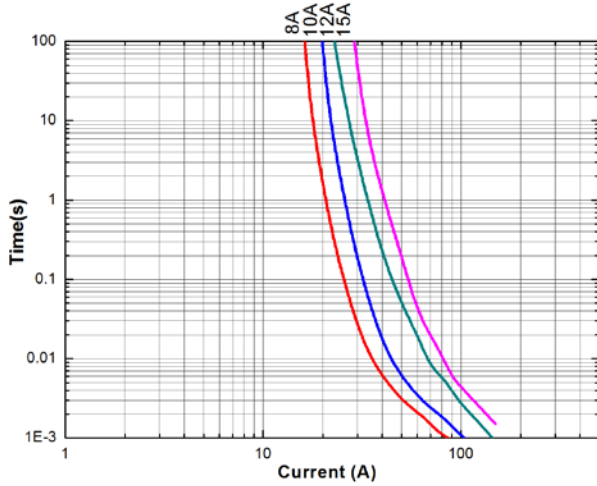


Materials

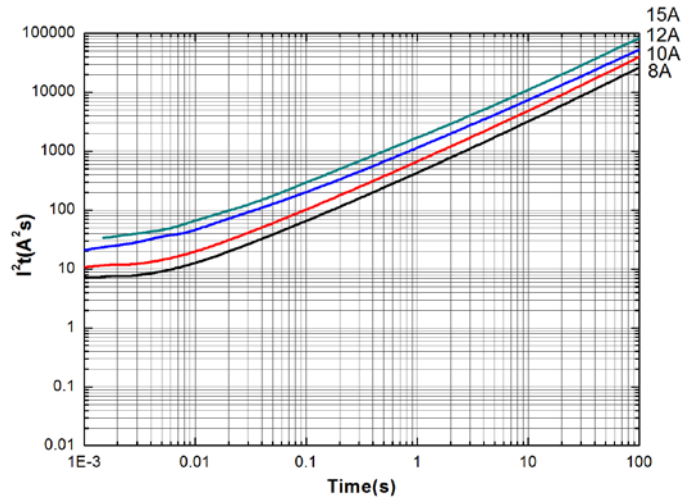
Components	Material
Substrate	Ceramic
Terminations	Silver over-plated with tin (100%)
Element	Silver or Silver / Palladium

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

Time Current Curve



I²T vs Time Curve



Electrical Characteristics

Ampere Rating	% of Current Rating	Opening Time
8.0A~15.0A	100%	> 4 hours
	350%	≤ 5 sec

Temperature Derating Curve

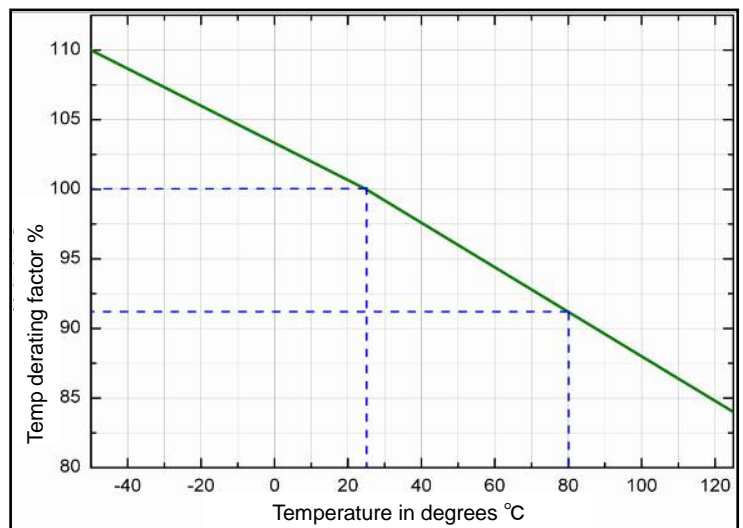
- The current carrying capacity will be affected by ambient temperature which was showed in the figure.
- This current derating curve is for fusing characteristics.

Example,

Work Temp:80°C,

Temp derating factor = 91%

$$I_{\text{actual}} = I_{\text{normal}} / 0.91$$



Reliability Test

Item	Test condition / Methods	Performance	Standard
Voltage Drop	100% In; Temperature in fuse was stabilized	Deviation between the mean value:<15%	IEC 60127-1
Time/Current	100% In	No Fusing;4hours Min.	Refer to SART Spec
	350% In	Within 5sec	
Temperature Rise	100%In	$ \Delta T < 90^{\circ}\text{C}$	IEC60127
Interrupting Ability	150A /32V DC	Without permanent arcing, ignition and bursting of fuse link	UL248-14
Solderability	$240^{\circ}\text{C} \pm 5^{\circ}\text{C}$, 3sec ± 0.5 sec	95% coverage Min.	IEC60127-4 IEC60068-2-20 MIL-STD-202
Resistance to Soldering	$260^{\circ}\text{C} \pm 5^{\circ}\text{C}$, 10sec ± 0.5 sec	$ \Delta R < 10\%$; Legible appearance;	MIL-STD-202 IEC60127-4
Bending Test	Distance between holding points: 90mm Bending: 1mm ; time:10sec	$ \Delta R < 10\%$; No mechanical damages	IEC 60127-4
High Temperature Operating Life	$70^{\circ}\text{C} \pm 2^{\circ}\text{C}$, 96hours, at 60% In	$ \Delta R < 10\%$; no fusing	MIL-STD-202 Method 108
Low Temperature Storage	$-55^{\circ}\text{C} \pm 2^{\circ}\text{C}$, 96hours	$ \Delta R < 10\%$	IEC60068-2-1
High Temperature Storage	$125^{\circ}\text{C} \pm 2^{\circ}\text{C}$, 96hours	$ \Delta R < 10\%$	IEC60068-2-2
Humidity (steady state)	$40^{\circ}\text{C} \pm 2^{\circ}\text{C}$, 90%~95%RH, 1000hours	$ \Delta R < 10\%$	MIL-STD-202 Method 103
Salt Spray	5% salt solution, 48hours exposure	$ \Delta R < 10\%$ Legible appearance	MIL-STD-202 Method 101
Thermal Shock	5 cycles between $-55^{\circ}\text{C}/+125^{\circ}\text{C}$, 60 minutes ; each extreme	$ \Delta R < 10\%$ No mechanical damages	IEC 60068-2-14

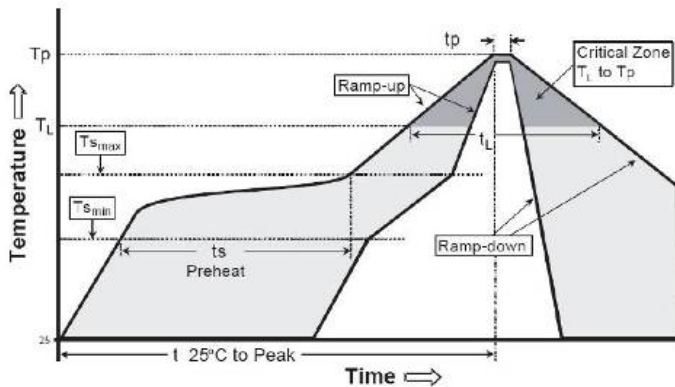
Recommended Solder Curve

1.Infrared Reflow:

Temperature : 260°C

Time : 5sec Max.

Recommend Reflow profile



Profile Feature	Pb-Free Assembly
Average Ramp-Up Rate($T_{s_{max}}$ to T_p)	3°C/s Max.
Preheat Temperature Min($T_{s_{min}}$)	150°C
Temperature Max($T_{s_{max}}$)	200°C
Time($T_{s_{min}}$ to $T_{s_{max}}$)	60sec~120sec
Peak Temperature(T_p)	260°C
Time within 5°C of actual Peak Temperature(T_p)	5sec
Melting tin time(t_L)	20sec~30sec
Ramp-Down Rate	6°C/s Max.
Time 25°C to Peak Temperature	8 minutes Max.

2.Wave soldering

Reservoir Temperature : 260°C

Time in Reservoir : 10sec Max.

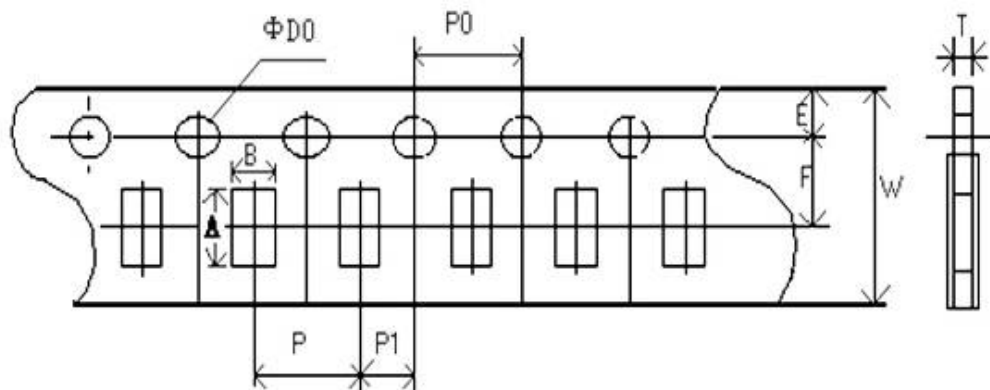
3.Hand Soldering

Temperature : 350°C

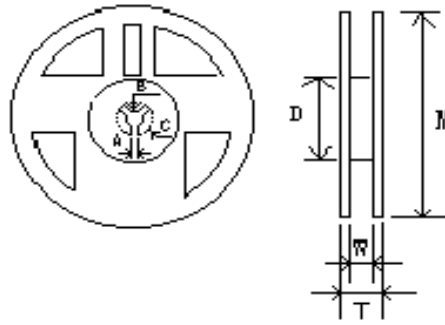
Time : 5sec Max.

Packaging

5,000 pieces of fuses in paper taper and reeled on a 178mm(7 inch) reel



Type	A(mm)	B(mm)	W(mm)	F(mm)	E(mm)
Spec	3.50±0.20	1.90±0.20	8.00±0.20	3.50±0.05	1.75±0.10
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 shall between 5°C~30°C.
- The relative humidity recommended for storage is between 25%~60%.
- 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.