




## General

- High Inrush withstand capability
- Wire-In-Air performance
- Wide range of current rating available
- 6.1mm× 2.5mm square shape surface mount
- Higher temperature profiles
- -55°C~125°C operating temperature
- Excellent environmental integrity
- RoHS compliant
- Halogen-free

## Agency / Certificate Information

Agency	File Number	Ampere Range
	JDYX2.E319512	0.5A-5.0A
	JDYX8.E319512	0.5A-5.0A

## 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

## Ordering Information

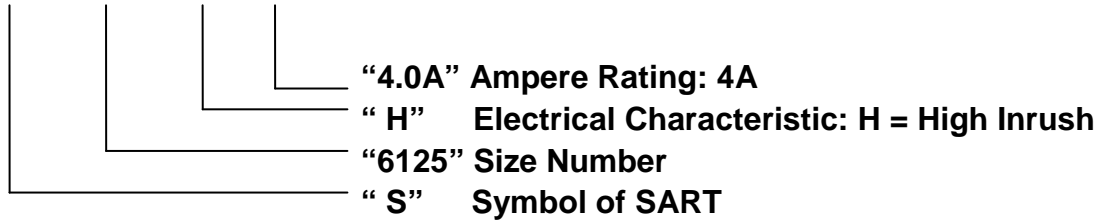
Part Number	Current Rating(A)	Voltage Rating(V)	Interrupting Rating	Typical Cold DCR*(mΩ)	Nominal $I^2T^*(A^2s)^*$
S6125- H-0.5A	0.5	125	UL 50A@125V AC 50A@125V DC	250	0.312
S6125-H-1.0A	1	125		126	3.12
S6125-H-1.25A	1.25	125		101	4.21
S6125-H-1.5A	1.5	125		78	4.98
S6125-H-1.6A	1.6	125		74	5.85
S6125-H-2.0A	2	125		52	7.20
S6125-H-2.5A	2.5	125		38	14.05
S6125-H-3.0A	3	125		30	16.92
S6125-H-3.15A	3.15	125		26	18.68
S6125-H-3.5A	3.5	125		24	21.95
S6125-H-4.0A	4	125		21	32.80
S6125-H-5.0A	5	125		14	37.57

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

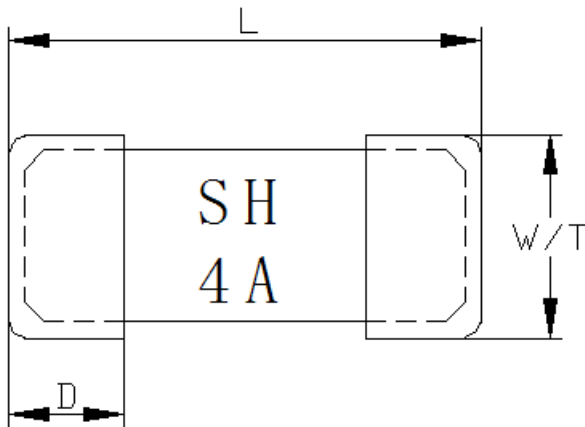
\*\* Melting  $I^2T$  at 10 times of rated current

## Catalog Symbol

**S 6125-H-4.0A**

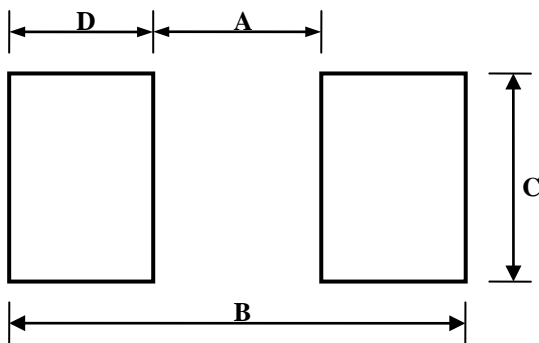


## Dimensions



L(mm)	W(mm)	T(mm)	D(mm)
6.10±0.20	2.50±0.10	2.50±0.10	1.40±0.10

## Recommended Land Patterns

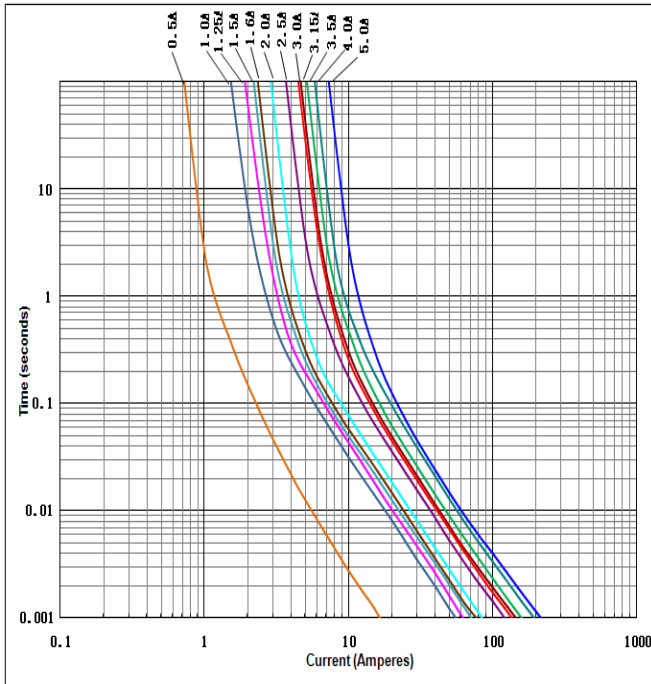


## Materials

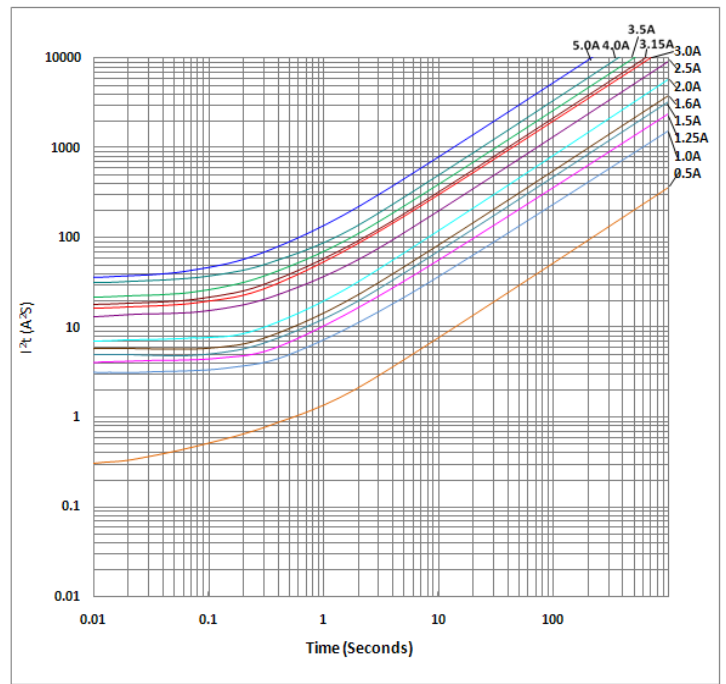
Components	Material
Body	Ceramic
Terminations	Au Plated Brass Cap
Element	Silver Plated Cu Alloy wire

Dimensions	A(mm)	B(mm)	C(mm)	D(mm)
Spec	3.00±0.30	8.00±0.30	3.00±0.30	2.50±0.30

## Time Current Curve



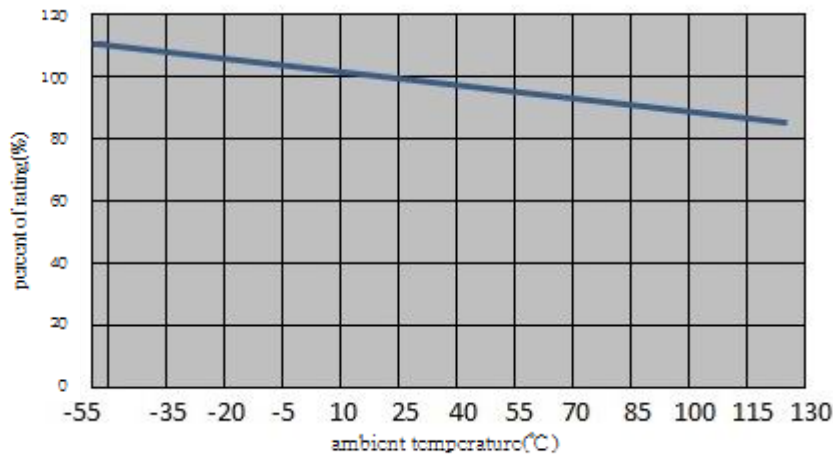
## I<sup>2</sup>T VS Time Curve



## Electrical Characteristics

Ampere Rating	% of Current Rating	Opening Time
0.5A-5.0A	100%	Min.4hours
0.5A-5.0A	200%	Max.120sec

## Temperature Derating Curve



## Reliability Test

Item	Test conditions / Methods	Performances	Standards
Time/Current	100% In	No Fusing ; 4hours,Min.	UL248-14
	200% In	<120sec	Refer to SART Spec
	1000% In	>10ms	IEC60127-4
Voltage Drop	100% In	0.5A-5A<300mv	IEC-60127-4
Endurance Test	Repeating 100 cycles of 1In for 1 hour and switchingoff for 15minuts, following by 1 hour at 1.25In and testing Temperature rise.	$ \Delta R  < 10\%$ <75°C	IEC-60127-4
Interrupting Ability	50A@125V AC 50A@125V DC	Without permanent arcing, ignition and bursting of fuse link	UL248-14 IEC60127-4
Solder ability	240°C±5°C, 3sec±0.5sec	95% coverage Min.	IEC60127-4 IEC60068-2-20; MIL-STD-202
Resistance to soldering	260°C±5°C, 10ses±0.5sec	$ \Delta R  < 10\%$	Refer to SART Spec
High Temperature Operating Life	T=70°C±2°C, 0.6In, 96hours	$ \Delta R  < 10\%$	MIL-STD-202 Method 108
Humidity(steady state)	T=40°C±2°C, 90%~95%RH, 1000hours	$ \Delta R  < 10\%$	MIL-STD-202 Method 103
Low Temperature Storage	T=-55°C±3°C, 96hours	$ \Delta R  < 10\%$	IEC60068-2-1
High Temperature Storage	T=125°C±2°C, 96hours	$ \Delta R  < 10\%$	IEC60068-2-2
Salt Spray	5% salt solution , 48hours	$ \Delta R  < 10\%$	MIL-STD-202 Method 101
Thermal Shock	100 cycles between -65°C/+125°C, 60 minutes ; each extreme	$ \Delta R  < (10\%R + 0.005 \Omega)$	IEC 60068-2-14

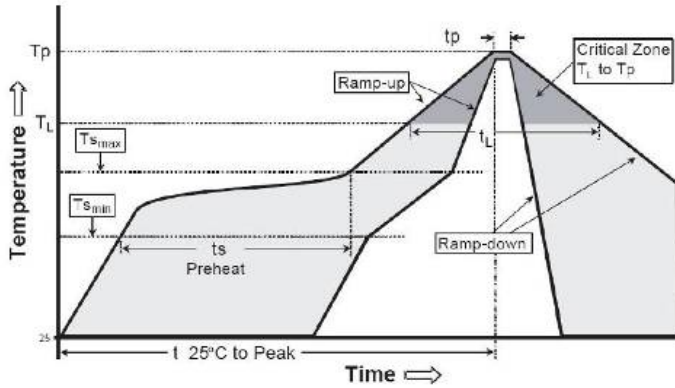
## Recommended Solder Curve

### 1. Infrared Reflow:

Temperature : 260°C

Time : 5secMax.

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( $T_{s_{min}}$ ) Temperature Max( $T_{s_{max}}$ ) Time( $T_{s_{min}}$ to $T_{s_{max}}$ )	150°C 200°C 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~40sec
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 : 10secMax.

### 3.Hand Soldering

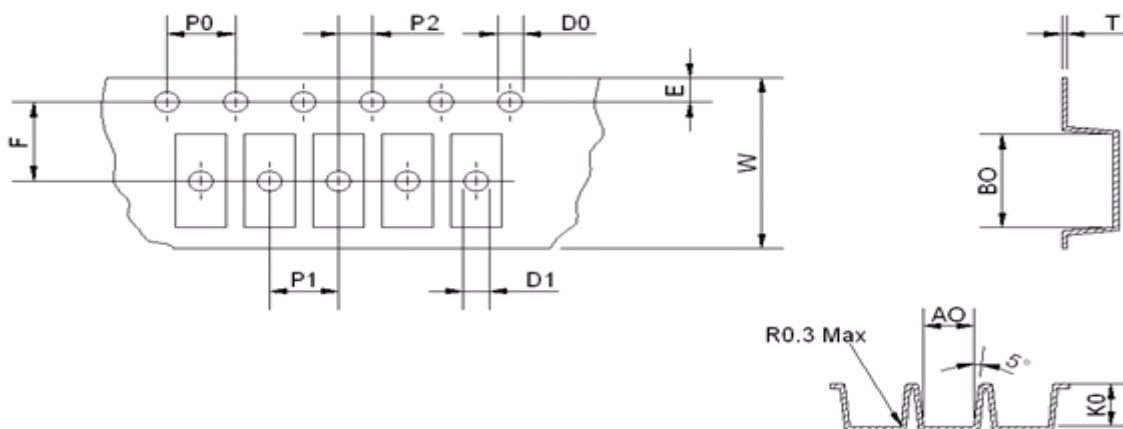
Temperature : 300°C

Time : 2secMax.

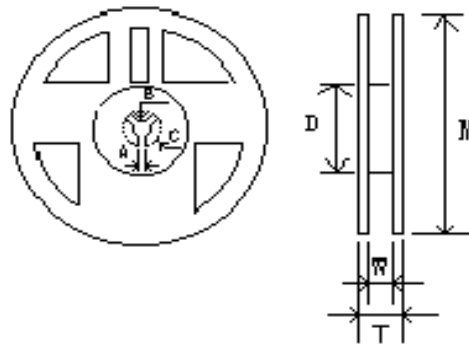
Soldering iron avoid touch Brass Cap.

## Packaging

1000 pieces of fuses in emboss taper and reeled on a 178mm(7 inch) reel.



Type	A0(mm)	B0(mm)	K0(mm)	P0(mm)	P1(mm)	P2(mm)
Spec	2.70±0.10	6.40±0.10	2.70±0.10	4.00±0.10	4.00±0.10	2.00±0.10
Type	E(mm)	F(mm)	D0(mm)	D1(mm)	W(mm)	T(mm)
Spec	1.75±0.10	5.50±0.10	1.50±0.10	1.50±0.25	12.00±0.15	0.25±0.05



Type	M(mm)	W(mm)	T(mm)	A(mm)	B(mm)	C(mm)	D(mm)
Spec	178.00±2.00	12.50±1.00	14.50±1.50	2.00±0.50	13.00±0.50	21.00±0.50	58.00±2.00

### Storage

- The ambient temperature shall be 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.