

## ■ Features

- Molding Inductor.
- Low Profile,Low Temp.
- Large Current.
- Customize For Different Need.
- Operating temperature:-40℃ ~ +125℃.

## ■ Applications

- General Electronic.
- Video Device,TV,TFT.
- Power Module for PC.
- NB/Lap Top Computer.
- Server,VGA Card/Module.

## ■ Product Identification

$\frac{\text{YSMC}}{(1)}$ 
 $\frac{\square\square\square\square\square}{(2)}$ 
 $-\frac{\square\square\square}{(3)}$ 
 $\frac{\square}{(4)}$

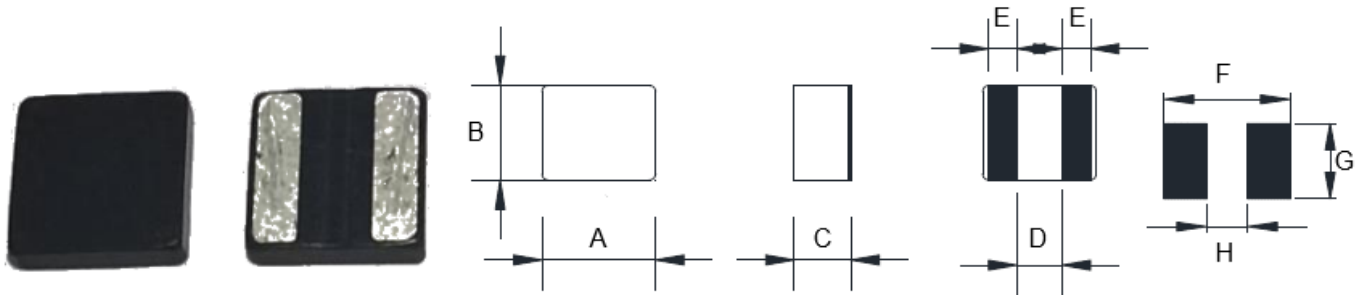
(1) : Type

(2) : Dimensions

(3) : Inductance value

(4) : Inductance Tolerance : N=±30%,M=±20% , K=±10%

## ■ Shapes and Dimensions (Unit: mm)



TYPE	A	B	C Max.	D	E	F Ref.	G Ref.	H Ref.
YSMC2510S	2.5±0.2	2.0±0.2	1.0	0.9 Typ	0.7 Typ	2.6	2.1	0.6

## ■ YSMC2510S Series

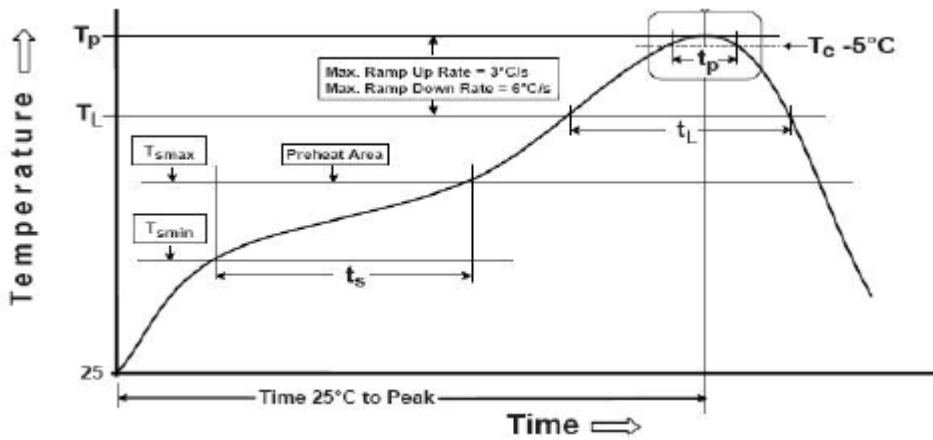
Part Number	Inductance (uH) @100KHz	DC Resistance (mΩ)		Saturation current(A)		Heat Rating current(A)	
		Typ.	Max.	Typ.	Max.	Typ.	Max.
YSMC2510S-R47□	0.47	16	20	7.0	6.5	5.0	4.7
YSMC2510S-1R0□	1.0	27	30	5.4	5.0	4.7	4.5
YSMC2510S-1R5□	1.5	37	42	4.0	3.7	4.1	3.6
YSMC2510S-2R2□	2.2	57	65	3.5	3.2	3.3	2.6

- ※ Saturation current: indicates the current when the inductance decrease to approximately 70% of initial value.(at 25°C)
- ※ The temperature rise current value is the DC current value having temperature increase up to approximately 40°C. (at 25°C)

### ■ Reliability Test

NO.	ITEMS	CONDITIONS	SPECIFICATION
1	OPERATION TEMPERATURE STORAGE TEMPERATURE		-40 ~ +125 °C (INCLUDING COIL TEMPERATURE RISE) -40 ~ +125 °C
2	TEMPERATURE COEFFICIENT	-30 ~ +105 °C	0 ~ 2000ppm/°C
3	FIXING STRENGTH	SAMPLE IS PUSHED IN THREE DIRECTIONS O,Y AND Z WITH FORCE OF 5. ON FOR 10±5 SECONDS.AFTER SOLDERING BETWEEN COPPER PLATE AND ELECTRODES.	NO ELECTRODE DETACHMENT.
4	RESISTANCE TO SOLDERING HEAT TEST	REFER TO THE SPEC "STD-001NP"	NO MECHANICAL BREAKAGE.DEVIATION RELATIVE TO INITIAL VALUE:L:WITHIN ±5.0%
5	SOLDERABILITY TEST	IMMERSE THE ELECTRODE IN FLUX FOR 5 SECONDS.THEN DIP THE ELECTRODE INTO A SOLDERING BATH OF 245±5 °C FOR 2±0.5 SECONDS.	OVER 95% OF THE SURFACE BEING IMMERSED SHALL BE COVERED WITH NEW SOLDER UNIFORMLY.
6	HUMIDITY TEST	TEMPERATURE:60°C±2°C HUMIDITY:90%~95%RH DURATION:96±4 HOURS.	DEVIATION RELATIVE TO INITIAL VALUE: L:WITHIN ±5.0%
7	THERMAL SHOCK TEST	20 CYCLES OF +105°C FOR 30 MINUTES,-40°C FOR 30 MINUTES.CHARACTERISTICS ARE MEASURED AFTER THE AMBIENT AIR EXPOSURE OF 1 HOUR.	DEVIATION RELATIVE TO INITIAL VALUE: L:WITHIN ±5.0%
8	HIGH TEMPERATURE STORAGE TEST	TEMPERATURE:125°C±2°C DURATION:96±4 HOURS	
9	LOW TEMPERATURE STORAGE TEST	TEMPERATURE:-40°C±3°C DURATION:96±4 HOURS.	

**Reflow profile for SMT components**

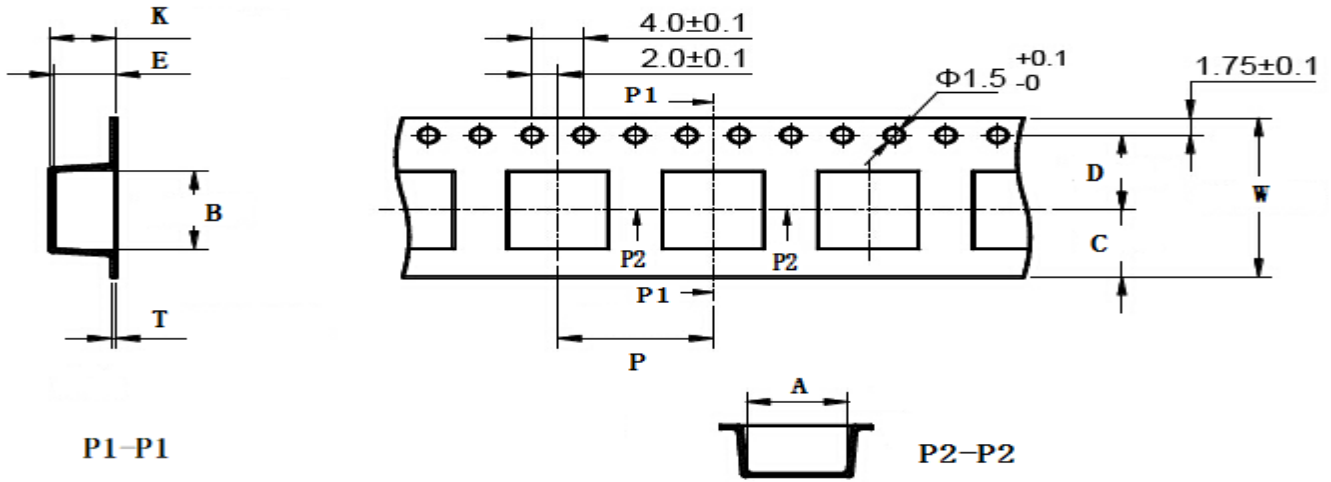


**Reflow is referred to standard IPC/JEDEC J-STD-020D**

Profile Feature		Lead(Pb) Free solder
Preheat and Soak	Temperature Min.(Tsmmin)	150°C
	Temperature Max.(Tsmmax)	200°C
	time(Tsmmin to Tsmmax)(ts)	60-120 Seconds
Average ramp up rate Tsmmax to Tp		3°C/Second Max.
Liquidous temperature(TL)		217°C
Time(TL)maintained above TL		60-150 Seconds
Peak package body temperature(Tp)		Table2
Time(tp)*within 5°C of the specified classification		30*seconds
Temperature(Tc)		
Average Ramp-down rate(Tp to TL)		6°C/second max
Time 25°C to peak temperature		8 minutes max.

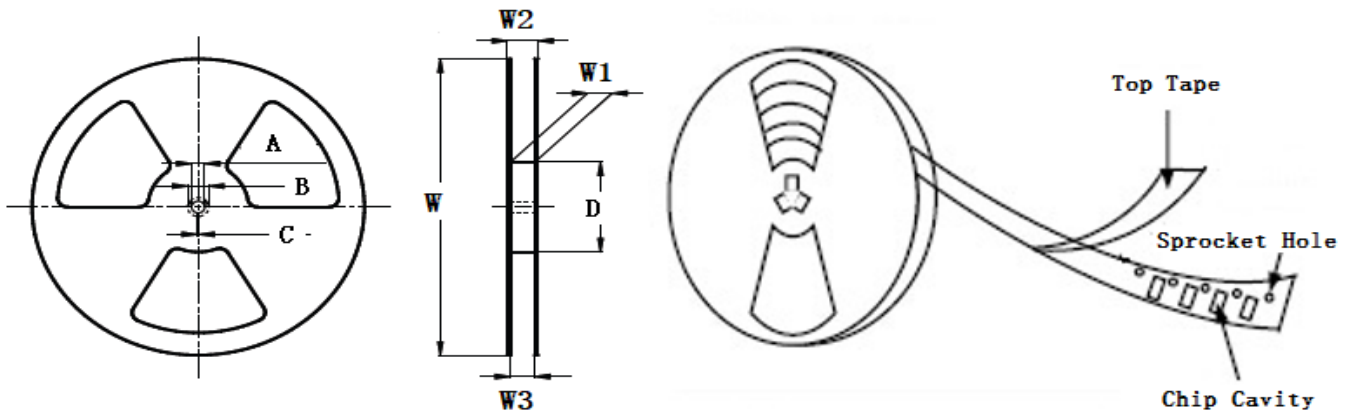
Table2. Pb-Free Process-Classification Temperatures (Tc)			
Package Thickness	Volume mm <sup>3</sup> <350	Volume mm <sup>3</sup> 350~2000	Volume mm <sup>3</sup> >2000
<1.6mm	260°C	260°C	260°C
1.6mm - 2.5mm	260°C	250°C	245°C
>2.5mm	250°C	245°C	245°C

**■ Taping Dimensions(Unit:mm)**



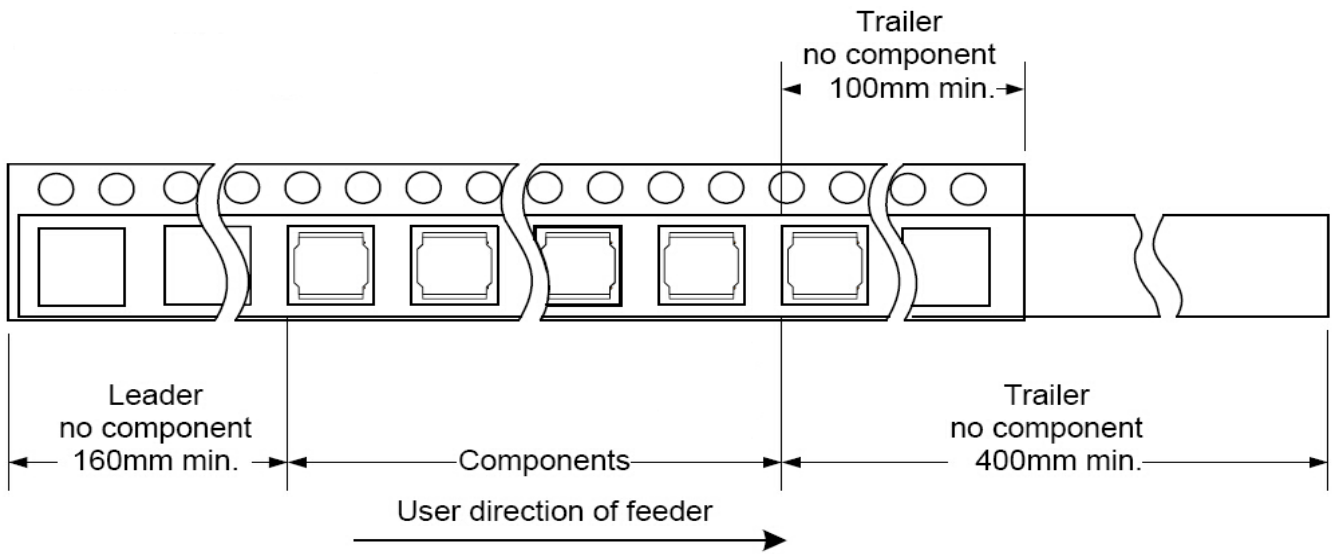
TYPE	W	A	B	C	D	E	P	K Ref	T	MPQ
YSMC2510S	8.0±0.1	2.35±0.05	2.8±0.05	2.75	3.5±0.05	1.35±0.05	4.0±0.1	1.35	0.25±0.05	3000

**■ Reel Dimensions(Unit:mm)**

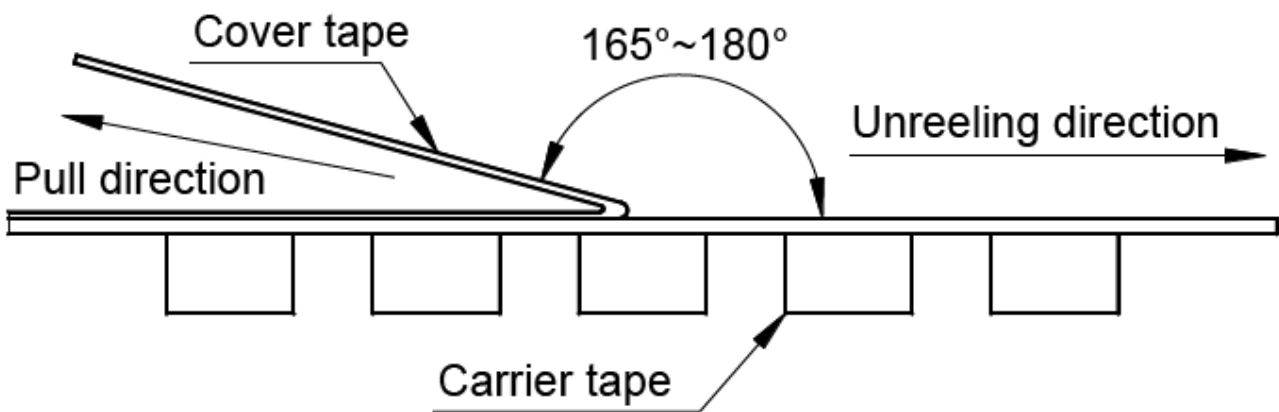


TYPE	W	W1	W2	W3	A	B	C	D
YSMC2510S	178±2.0	12.8±1.50	14.4MAX	8.4 Min	13.0±0.50	21.0±0.80	2.0±0.50	100 Min

**Direction of rolling**



**Cover tape peel off condition**



Cover tape peel force shall be 0.1N to 1.3N.

Reference peel speed  $300 \pm 10$  mm/min.

## X-ON Electronics

Largest Supplier of Electrical and Electronic Components

*Click to view similar products for [Fixed Inductors](#) category:*

*Click to view products by [YJYCOIN](#) manufacturer:*

Other Similar products are found below :

[CR32NP-151KC](#) [CR32NP-180KC](#) [CR32NP-181KC](#) [CR32NP-1R5MC](#) [CR32NP-390KC](#) [CR32NP-3R9MC](#) [CR32NP-680KC](#) [CR32NP-820KC](#) [CR32NP-8R2MC](#) [CR43NP-390KC](#) [CR43NP-560KC](#) [CR43NP-680KC](#) [CR54NP-181KC](#) [CR54NP-470LC](#) [CR54NP-820KC](#) [CR54NP-8R5MC](#) [70F224AI](#) [MGDQ4-00004-P](#) [MHL1ECTTP18NJ](#) [MHQ1005P10NJ](#) [MHQ1005P1N0S](#) [MHQ1005P2N4S](#) [MHQ1005P3N6S](#) [MHQ1005P5N1S](#) [MHQ1005P8N2J](#) [PE-51506NL](#) [PE-53601NL](#) [PE-53602NL](#) [PE-53630NL](#) [PE-53824SNLT](#) [PE-92100NL](#) [PG0434.801NLT](#) [PG0936.113NLT](#) [9220-20](#) [9310-16](#) [PM06-2N7](#) [PM06-39NJ](#) [A01TK](#) [1206CS-471XJ](#) [HC2LP-R47-R](#) [HC2-R47-R](#) [HC3-2R2-R](#) [HCF1305-3R3-R](#) [1206CS-151XG](#) [RCH664NP-140L](#) [RCH664NP-4R7M](#) [RCH8011NP-221L](#) [RCP1317NP-332L](#) [RCP1317NP-391L](#) [RCR1010NP-470M](#)