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

YSMC	□□□□□－	□□□	□
(1)	(2)	(3)	(4)

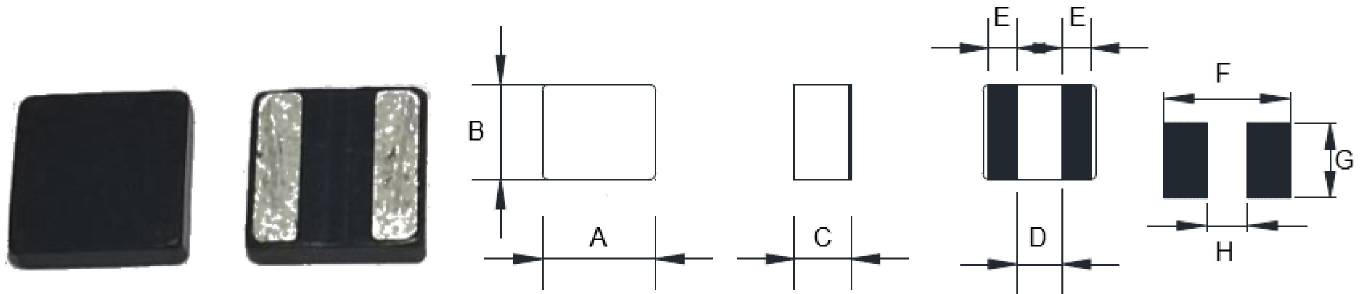
(1)： Type

(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.
YSMC2016S	2.0±0.2	1.6±0.2	1.0	0.8 Typ	0.5 Typ	2.1	1.7	0.5

YSMC2016S Series

Part Number	Inductance (uH) @100KHz	DC Resistance (mΩ)		Saturation current(A)		Heat Rating current(A)	
		Typ.	Max.	Typ.	Max.	Typ.	Max.
YSMC2016S-R24□	0.24	9	12	7.8	7.0	5.9	5.4
YSMC2016S-R33□	0.33	16	19	7.6	6.8	5.7	5.2
YSMC2016S-R47□	0.47	18	21	6.0	5.6	5.4	4.8
YSMC2016S-1R0□	1.0	35	42	4.5	4.2	4.6	4.2
YSMC2016S-1R5□	1.5	61	68	3.5	3.0	3.6	3.2

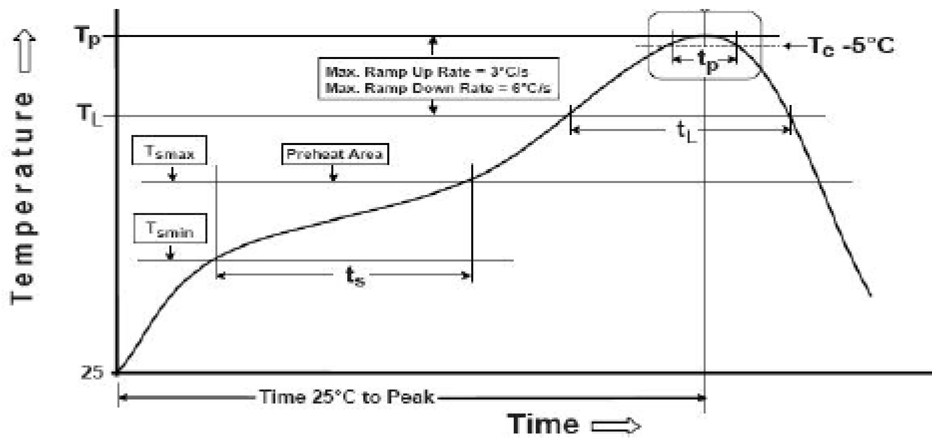
※ Saturation current：indicates the current when the inductance decrease to approximately 70% of initial value.(at 25℃)

※ The temperature rise current value is the DC current value having temperature increase up to approximately 40℃. (at 25℃)

■ Reliability Test

NO.	ITEMS	CONDITIONS	SPECIFICATION
1	OPERATION TEMPERATURE STORAGE TEMPERATURE		-40 ~ +125 ℃ （INCLUDING COIL TEMPERATURE RISE） -40 ~ +125 ℃
2	TEMPERATURE COEFFICIENT	-30 ~ +105 ℃	0 ~ 2000ppm/℃
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℃ FOR 2±0.5 SECONDS.	OVER 95% OF THE SURFACE BEING IMMERSED SHALL BE COVERED WITH NEW SOLDER UNIFORMLY.
6	HUMIDITY TEST	TEMPERATURE:60℃±2℃ 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℃ FOR 30 MINUTES,-40℃ 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℃±2℃ DURATION:96±4 HOURS	
9	LOW TEMPERATURE STORAGE TEST	TEMPERATURE:-40℃±3℃ DURATION:96±4 HOURS.	

Reflow profile for SMT components

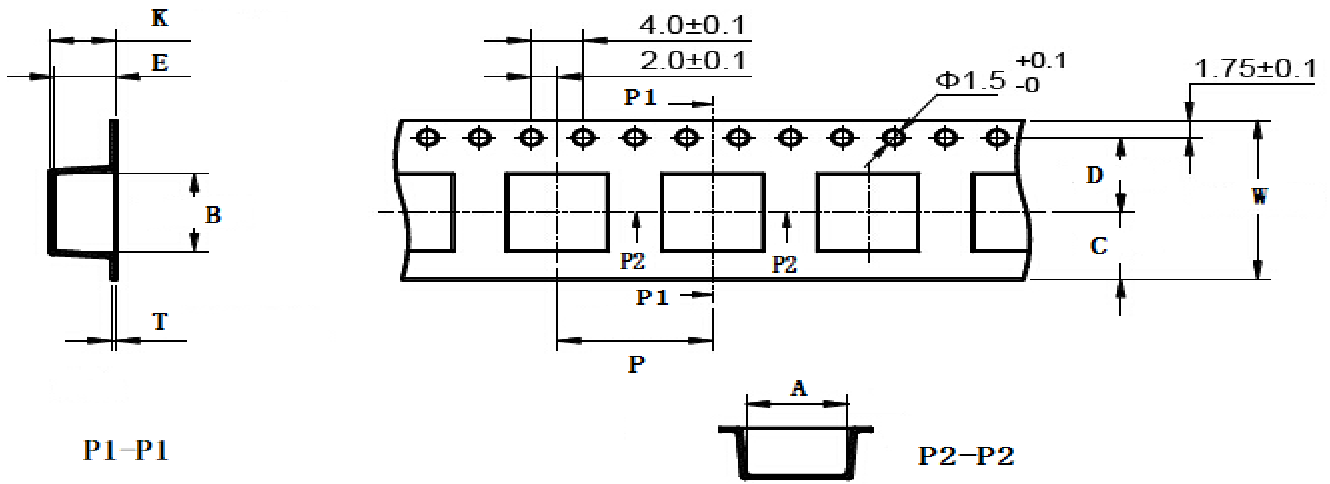


Reflow is referred to standard IPC/JEDEC J-STD-020D

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

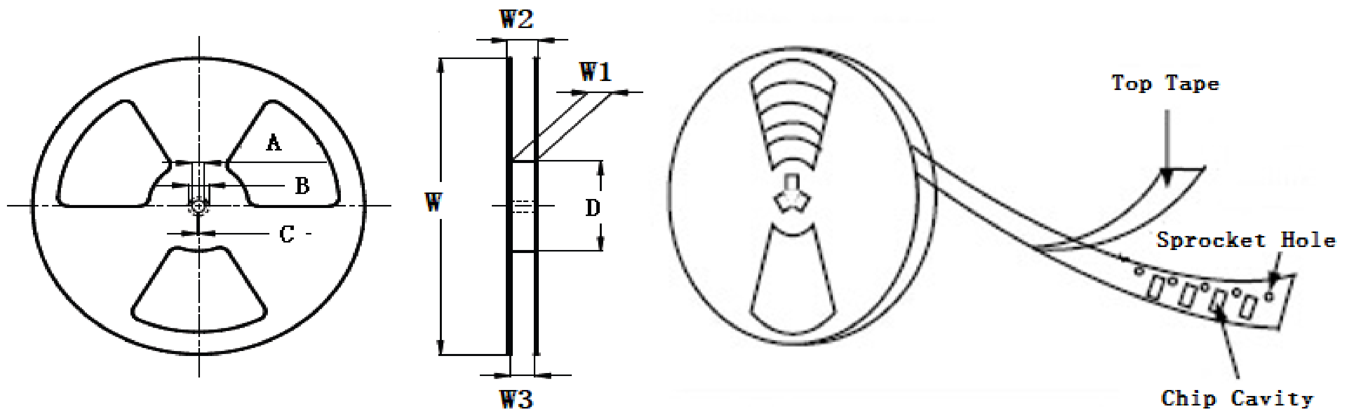
Table2.Pb-Free Process-Classification Temperatures(Tc)			
Package Thickness	Volume mm³ ＜350	Volume mm³ 350~2000	Volume mm³ ＞2000
＜1.6mm	260℃	260℃	260℃
1.6mm - 2.5mm	260℃	250℃	245℃
＞2.5mm	250℃	245℃	245℃

Taping Dimensions(Unit:mm)



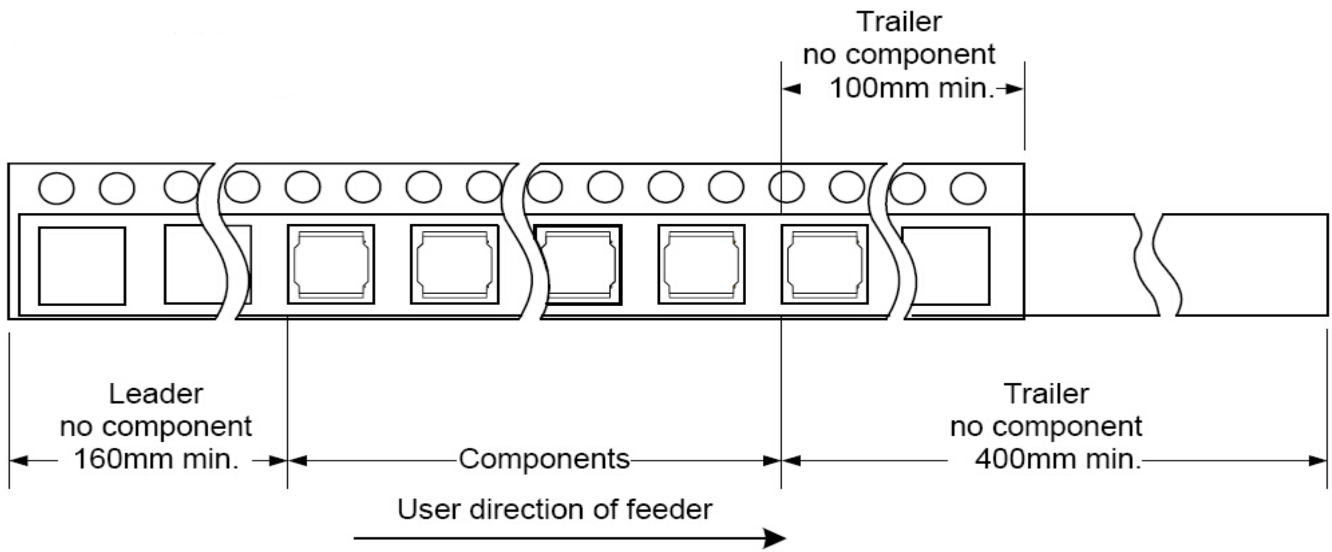
TYPE	W	A	B	C	D	E	P	K Ref	T	MPQ
YSMC2016S	8.0±0.1	2.35±0.05	2.8±0.05	2.75	3.5±0.05	1.35±0.05	4.0±0.1	1.35	0.25±0.05	3000

Reel Dimensions(Unit:mm)

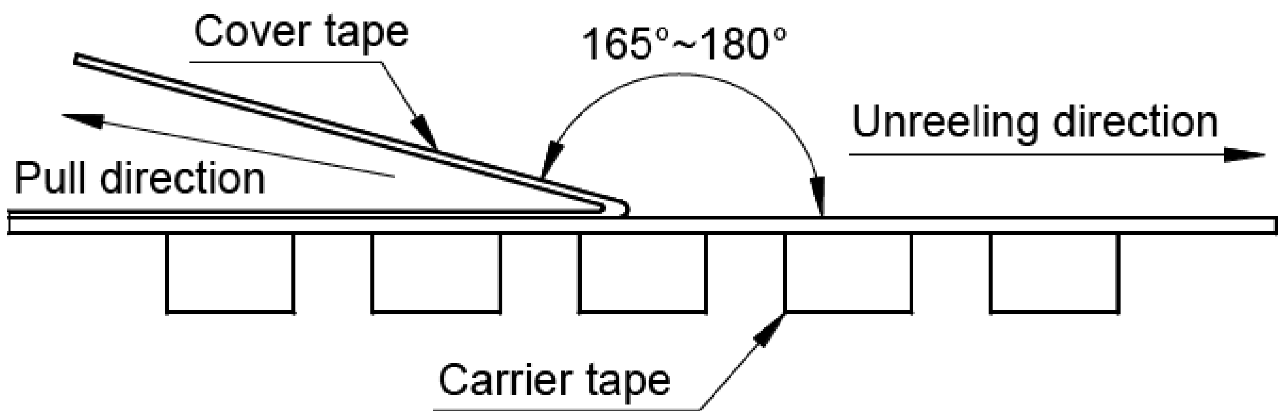


TYPE	W	W1	W2	W3	A	B	C	D
YSMC2016S	178±2.0	12.8±1.50	14.4MAX	8.4 Min	13.0±0.50	21.0±0.80	2.0±0.50	100 Min

Direction of rolling



Cover tape peel off condition



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

Reference peel speed 300±10mm/min.