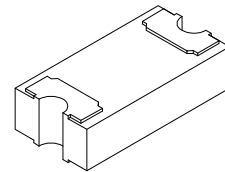
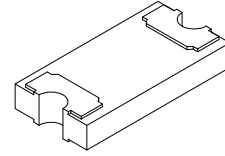


## FEATURE

- ◆ 1206 size, surface mount type
- ◆ Operation temperature range up to 125°C
- ◆ Products meet applicable automotive industry standards
- ◆ Compliant with AEC-Q200 Rev-D Stress Test Qualification for Passive Components in Automotive Applications
- ◆ Low thermal derating factor
- ◆ Higher hold current



## APPLICATIONS

- ◆ Overcurrent surge protection of electronic equipment required to operate at high temperature ranges
- ◆ Resettable fault protection of general electronics equipment
- ◆ Automotive electronics control module protection
- ◆ Industrial control
- ◆ Telematics, infotainment, and navigation systems

## ELECTRICAL CHARACTERISTICS

Part Number	I <sub>H</sub>	I <sub>T</sub>	V <sub>max</sub>	I <sub>max</sub>	Max. Time-to-trip		P <sub>dTyp</sub>	R <sub>Min</sub>	R <sub>1Max</sub>
	(A)	(A)	(V)	(A)	(A)	(S)	(W)	(Ω)	(Ω)
1206HPS005-30	0.05	0.15	30	20	2.5	1.50	0.9	3.50	35.00
1206HPS010-30	0.10	0.30	30	20	2.5	1.50	0.9	1.00	7.50
1206HPS016-30	0.16	0.80	30	20	8.0	0.10	0.9	0.70	6.00
1206HPS020-30	0.20	1.00	30	20	8.0	0.10	0.9	0.60	5.00
1206HPS035-30	0.35	1.40	30	20	8.0	0.10	0.9	0.40	2.00
1206HPS050-24	0.50	2.50	24	20	8.0	0.10	0.9	0.20	1.00
1206HPS075-16	0.75	2.25	16	40	8.0	0.15	1.2	0.08	0.50

I<sub>H</sub> = Hold Current. Maximum current device will not trip in 25°C still air.

I<sub>T</sub> = Trip Current. Minimum current at which the device will always trip in 25°C still air.

V<sub>max</sub> = Maximum operating voltage device can withstand without damage at rated current (I<sub>max</sub>).

I<sub>max</sub> = Maximum fault current device can withstand without damage at rated voltage (V<sub>max</sub>).

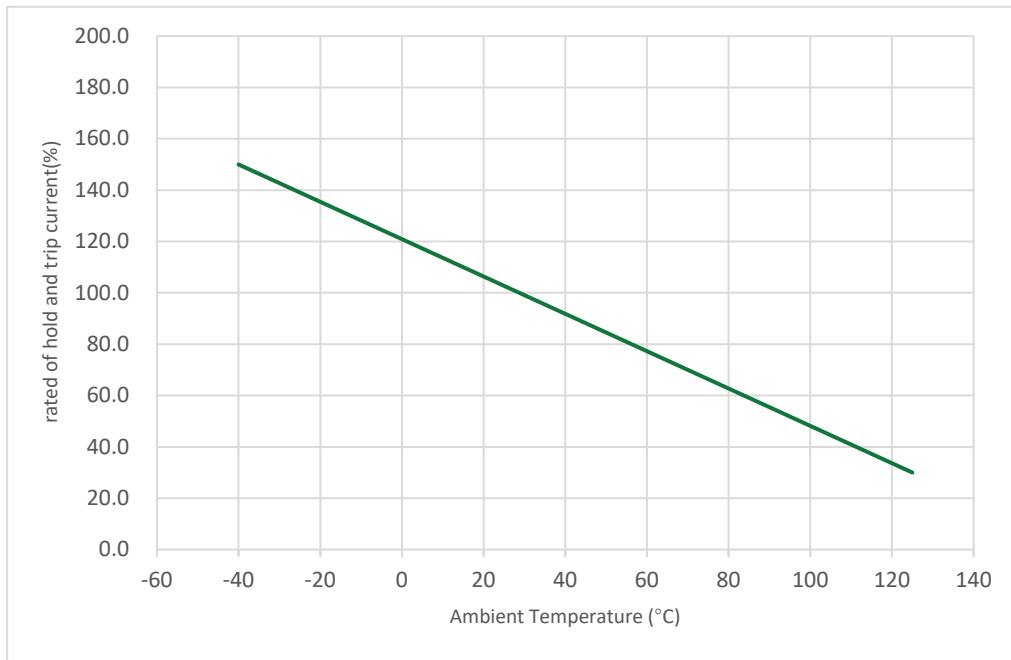
T<sub>trip</sub> = Maximum time to trip at assigned current.

P<sub>dTyp</sub> = Typical power dissipation when device is in the tripped state in 25°C still air environment at rated voltage

R<sub>min</sub> = Minimum device resistance prior to tripping at 25°C.

R<sub>1max</sub> = Maximum device resistance is measured one hour post reflow.

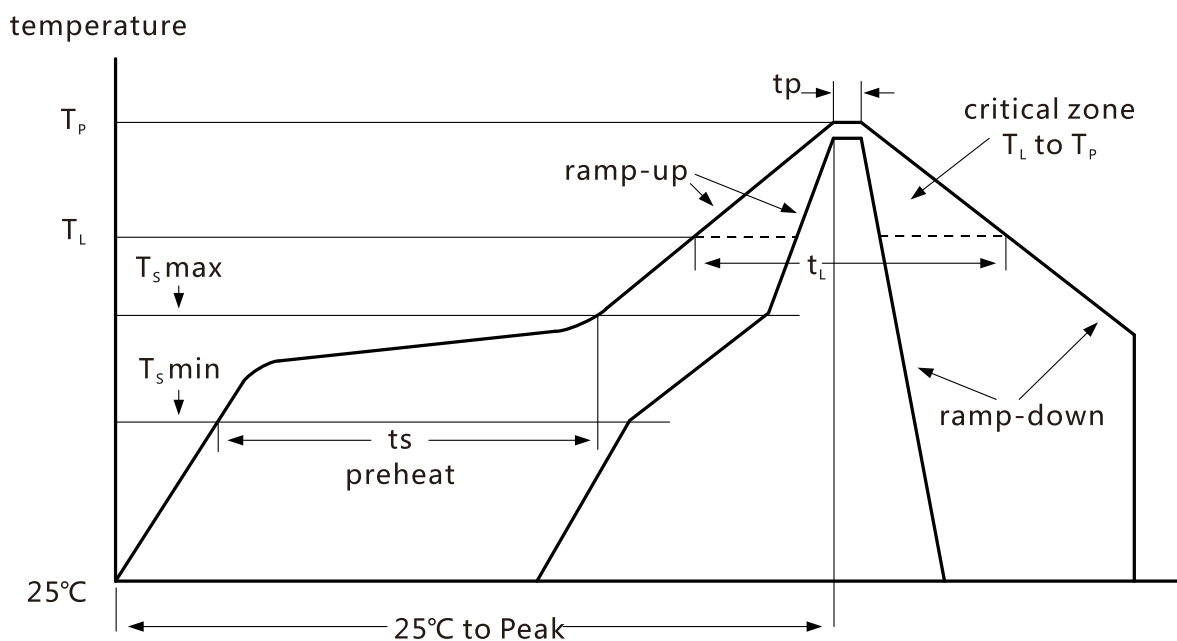
## THERMAL DARTING CURVES(for reference only)



## PHYSICAL CHARACTERISTICS

Terminal pad material:	100% Matte Tin with Nickel Underplate
Termination pad	Meets ANSI/J-STD-002, Category 3

## REFLOW SOLDERING PROFILE



LEAEMC ELECTRONICS CO., LTD.

Profile Feature		Pb-free assembly
Average ramp-up rate ( $T_s$ max to $T_p$ )		3°C/s maximum
Preheat	Temperature minimum ( $T_s$ min)	150°C
	Temperature maximum ( $T_s$ max)	200°C
	Time ( $T_s$ min to $T_s$ max)	60 s to 180 s
Time maintained above	Temperature ( $T_L$ )	217°C
	Time ( $t_L$ )	60 s to 150 s
Peak/classification temperature ( $T_p$ )		260°C
Time within 5 °C of actual peak temperature ( $t_p$ )		20 s to 40 s
Ramp-down rate		6°C/s maximum
Time 25 °C to peak temperature		8 minutes maximum

## ENVIRONMENTAL CHARACTERISTICS

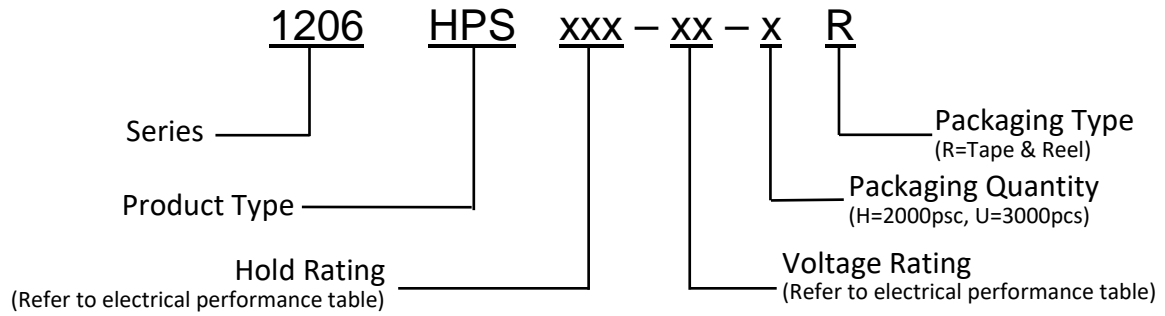
Test	Test Conditions	Accept/Reject Criterial
Operating Temperature	-40°C to +125°C	
Recommended Storage	+40°C max/70% R.H. max	
Passive Aging	+125°C, 1000 hours	R<R1max
Humidity Aging	+85°C, 85% R.H., 1000 hours	R<R1max
Thermal Shock	+125°C/-40°C 20 times	R<R1max
Solvent Resistance	MIL-STD-202, Method 215	No change
Vibration	MIL-STD-883C, Method 2007.1 Condition A	No change
Moisture Sensitivity Level	J-STD-020	Level 1

## THERMAL DERATING CHART-IH(A)

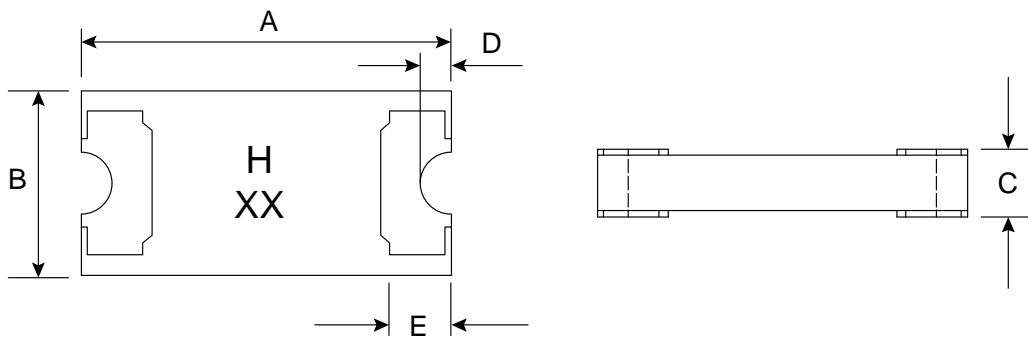
Recommended Hold Current(A) at Ambient Temperature(°C)

Part Number	Maximum Ambient Temperature									
	-40°C	-20°C	0°C	25°C	40°C	50°C	60°C	70°C	85°C	125°C
1206HPS005-30	0.075	0.068	0.060	0.050	0.045	0.042	0.038	0.035	0.030	0.015
1206HPS010-30	0.15	0.13	0.12	0.10	0.09	0.08	0.07	0.07	0.06	0.03
1206HPS016-30	0.23	0.21	0.19	0.16	0.14	0.13	0.12	0.11	0.09	0.04
1206HPS020-30	0.29	0.26	0.23	0.20	0.18	0.16	0.15	0.13	0.11	0.05
1206HPS035-30	0.51	0.46	0.41	0.35	0.31	0.28	0.26	0.23	0.20	0.09
1206HPS050-24	0.73	0.66	0.58	0.50	0.44	0.41	0.37	0.34	0.28	0.14
1206HPS075-16	1.09	0.98	0.87	0.75	0.66	0.61	0.56	0.50	0.42	0.20

## PART NUMBERING

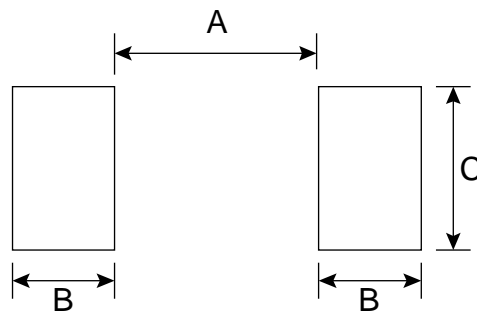


## DIMENSIONS & MARKING



Part Number	Making	Dimension(mm)								
		A(Min.)	A(Max.)	B(Min.)	B(Max.)	C(Min.)	C(Max.)	D(Min.)	E(Min.)	E(Max.)
1206HPS005-30	H00	3.00	3.40	1.50	1.80	0.50	0.85	0.05	0.25	0.75
1206HPS010-30	H01	3.00	3.40	1.50	1.80	0.50	0.85	0.05	0.25	0.75
1206HPS016-30	H0F	3.00	3.40	1.50	1.80	0.50	0.85	0.05	0.25	0.75
1206HPS020-30	H02	3.00	3.40	1.50	1.80	0.50	0.85	0.05	0.25	0.75
1206HPS035-30	H0L	3.00	3.40	1.50	1.80	0.50	0.85	0.05	0.25	0.75
1206HPS050-24	H05	3.00	3.40	1.50	1.80	0.80	1.30	0.05	0.25	0.75
1206HPS075-16	H07	3.00	3.40	1.50	1.80	0.80	1.30	0.05	0.25	0.75

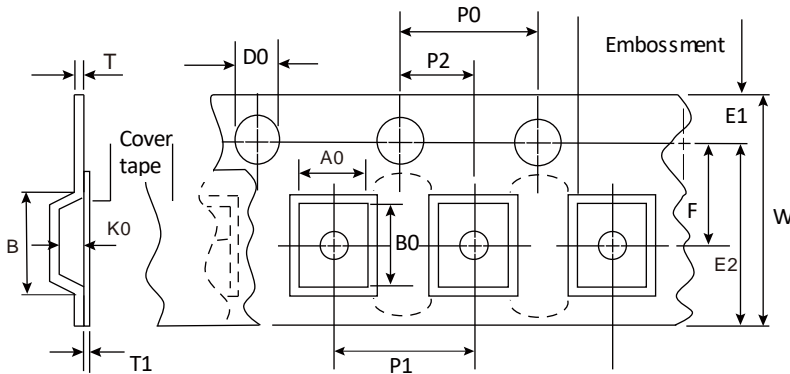
## PADS LAYOUT(recommended) (unit:mm)



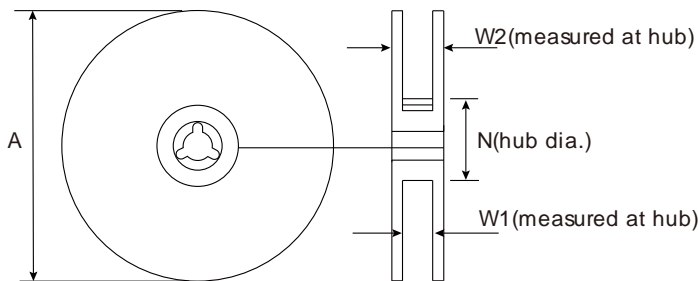
A(Nom)	B(Nom)	C(Nom)
2.00	1.00	1.60

## TAPE AND REEL SPECIFICATIONS (unit:mm)

### EIA Tape Component Dimensions



### EIA Reel Dimensions



**Marking:** A label will be attached on the reel and outer box which includes the following items, at a minimum: part name, quantity, lot number, safety approval mark (ul, etc).

Governing Specifications	EIA 481-1
W	8.0 ± 0.30
P0	4.0 ± 0.10
P1	4.0 ± 0.10
P2	2.0 ± 0.05
A0	1.95 ± 0.10
B0	3.5 +0.1, -0.08
B1max.	4.35
D0	1.55 ± 0.05
F	3.50 ± 0.05
E1	1.75 ± 0.10
E2min.	6.25
T	0.3
T1max.	0.1
K0	Below table
Reel Dimensions	
A max.	185
N min.	50
W1	8.4 +0.2, -0.0
W2 max.	14.4

K0(mm)	1.10 ± 0.10	1.40 ± 0.10
Description	1206HPS005-30 1206HPS010-30 1206HPS016-30 1206HPS020-30 1206HPS035-30	1206HPS050-16 1206HPS075-12

## PACKAGING QUANTITY

Part Number	Ordering code	Halogen Free	Tape&Reel Quantity	Standard Package	Packaging codes
1206HPS005-30	1206HPS005-30-UR	Yes	4000	15000	UR
1206HPS010-30	1206HPS010-30-UR	Yes	4000	15000	UR
1206HPS016-30	1206HPS016-30-UR	Yes	4000	15000	UR
1206HPS020-30	1206HPS020-30-UR	Yes	4000	15000	UR
1206HPS035-30	1206HPS035-30-UR	Yes	4000	15000	UR
1206HPS050-24	1206HPS050-24-HR	Yes	3000	10000	HR
1206HPS075-16	1206HPS075-16-HR	Yes	3000	10000	HR

Specifications are subject to change without notice.