

# SURFACE MOUNT INDUCTOR

## EC1812 Series

### Part Numbering Guide

<b>BODY STYLE</b> Surface Mount Chip	<b>EC 1812 - 47 J - T&amp;R</b>	<b>PACKAGING</b> Blank=Bulk *T&R=Tape and Reel (pg. N04)
<b>BODY SIZE</b> 4.50mm x 3.20mm (0.177" x 0.126")	<b>VALUE</b> in uH	<b>TOLERANCE</b> M=+/-20% K=+/-10% J=+/-5%

\*Standard

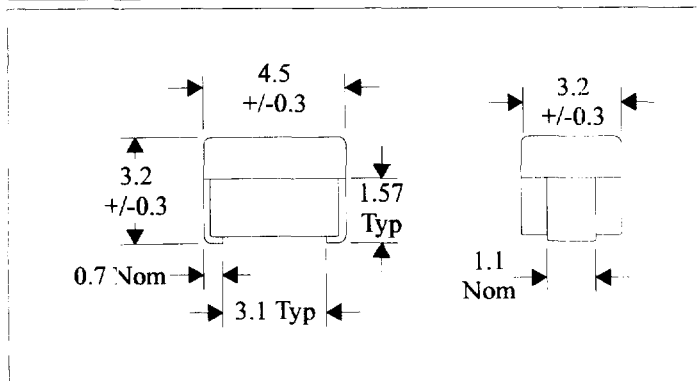
### Standard Specifications

Operating Temperature Range	-25°C to +85°C
Construction	Molded Epoxy

### Ordering Information

Ecliptek Part Number	L (uH)	Q (Min)	Test Freq (MHz)	SRF Min. (MHz)	DCR Max. (ohms)	Rated DC Curr. (mA)	Ecliptek Part Number	L (uH)	Q (Min)	Test Freq (MHz)	SRF Min. (MHz)	DCR Max. (ohms)	Rated DC Curr. (mA)
EC1812-22M	.22	40	25.2	150	0.15	710	EC1812-10K	10	40	7.96	20	0.84	300
EC1812-27M	.27	40	25.2	150	0.15	710	EC1812-12K	12	40	2.52	19	1.35	230
EC1812-33M	.33	40	25.2	150	0.16	670	EC1812-15K	15	40	2.52	18	1.5	220
EC1812-39M	.39	40	25.2	150	0.18	650	EC1812-18K	18	40	2.52	17	1.7	210
EC1812-47M	.47	50	25.2	150	0.20	620	EC1812-22K	22	40	2.52	16	1.8	200
EC1812-56M	.56	50	25.2	150	0.21	600	EC1812-27K	27	40	2.52	15	2.1	190
EC1812-68M	.68	50	25.2	130	0.22	580	EC1812-33K	33	40	2.52	14	2.4	180
EC1812-82M	.82	50	25.2	110	0.24	560	EC1812-39K	39	40	2.52	13	2.6	170
EC1812-1.0M	1.0	50	25.2	100	0.27	530	EC1812-47K	47	40	2.52	12	2.9	160
EC1812-1.2M	1.2	50	7.96	80	0.30	500	EC1812-56K	56	40	2.52	11	4.2	130
EC1812-1.5M	1.5	50	7.96	70	0.33	480	EC1812-68K	68	50	2.52	9.5	4.7	125
EC1812-1.8M	1.8	50	7.96	60	0.36	460	EC1812-82K	82	50	2.52	9.0	4.9	120
EC1812-2.2M	2.2	50	7.96	55	0.41	430	EC1812-100K	100	50	2.52	8.5	5.6	110
EC1812-2.7M	2.7	50	7.96	50	0.45	410	EC1812-120K	120	50	0.796	7.0	7.0	85
EC1812-3.3K	3.3	50	7.96	45	0.48	400	EC1812-150K	150	50	0.796	6.0	10.6	80
EC1812-3.9K	3.9	50	7.96	40	0.53	380	EC1812-180K	180	50	0.796	5.5	12.0	75
EC1812-4.7K	4.7	50	7.96	35	0.57	360	EC1812-220K	220	50	0.796	5.0	13.7	70
EC1812-5.6K	5.6	40	7.96	30	0.63	350							
EC1812-6.8K	6.8	40	7.96	25	0.69	330							
EC1812-8.2K	8.2	40	7.96	23	0.77	310							

### Dimensions in Millimeters



METRIC CONVERSION
4.500mm=0.177"
3.200mm=0.126"
3.100mm=0.122"
1.570mm=0.062"
1.100mm=0.043"
0.700mm=0.028"
0.300mm=0.012"

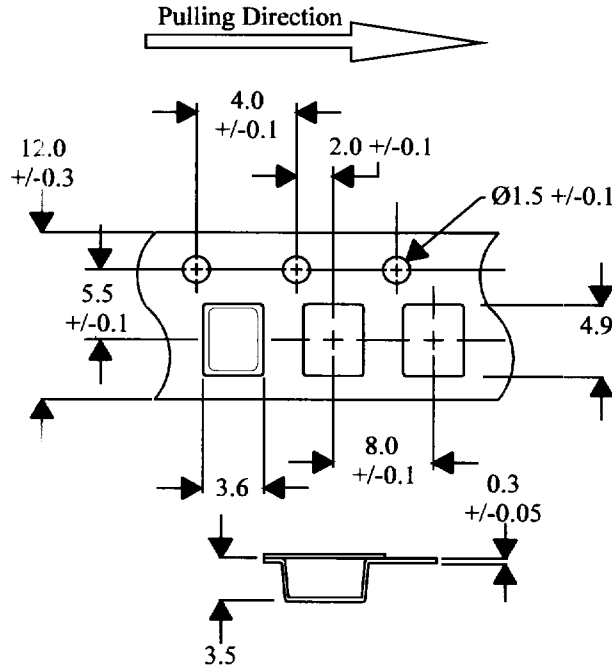
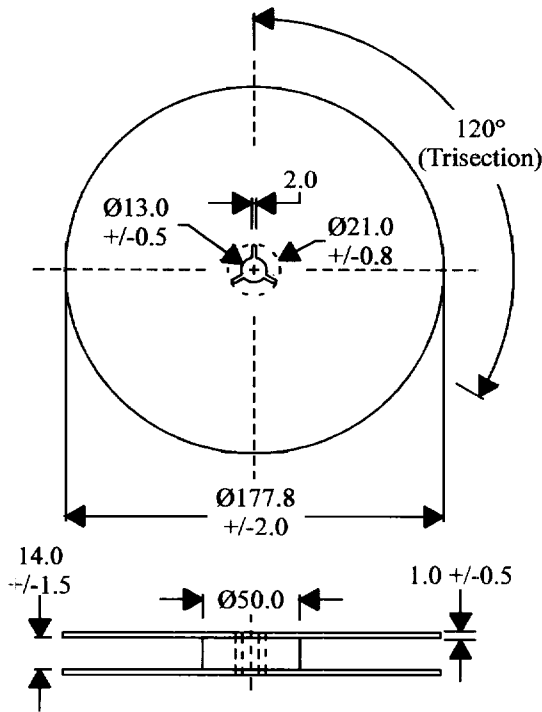
3545 CADILLAC AVENUE  
 COSTA MESA, CA 92626-1401  
 Phone: 714-433-1200  
 Fax: 714-433-1234  
 Specifications Subject To Change Without Notice.  
 Contact Factory For Latest Revision or use  
**Fax-On-Demand:** 1-800-ECLIPTEK  
**Internet:** <http://www.ecliptek.com/ecliptek/>  
**Email:** [ecliptek-sales@ecliptek.com](mailto:ecliptek-sales@ecliptek.com)



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## EC1812 Series

### Tape and Reel Specifications

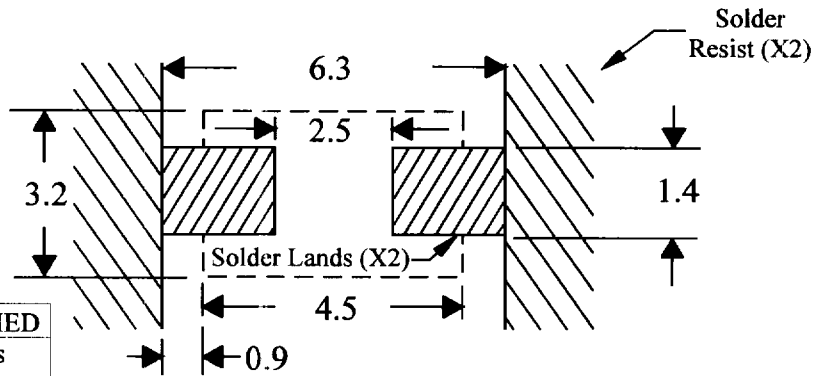


METRIC CONVERSION	
177.8mm	=7.000"
50.00mm	=1.968"
21.00mm	=0.827"
14.00mm	=0.551"
13.00mm	=0.512"
12.00mm	=0.472"
8.000mm	=0.314"
5.500mm	=0.217"
4.900mm	=0.193"
4.000mm	=0.157"
3.600mm	=0.142"
3.500mm	=0.138"
2.000mm	=0.078"
1.500mm	=0.059"
1.000mm	=0.040"
0.800mm	=0.031"
0.500mm	=0.020"
0.300mm	=0.012"
0.200mm	=0.008"
0.100mm	=0.004"
0.050mm	=0.002"

UNLESS OTHERWISE SPECIFIED  
All Dimensions In Millimeters  
Tolerances = +/-0.2mm

NOTES: • 500pcs. Per Reel • Compliant to EIA-481A

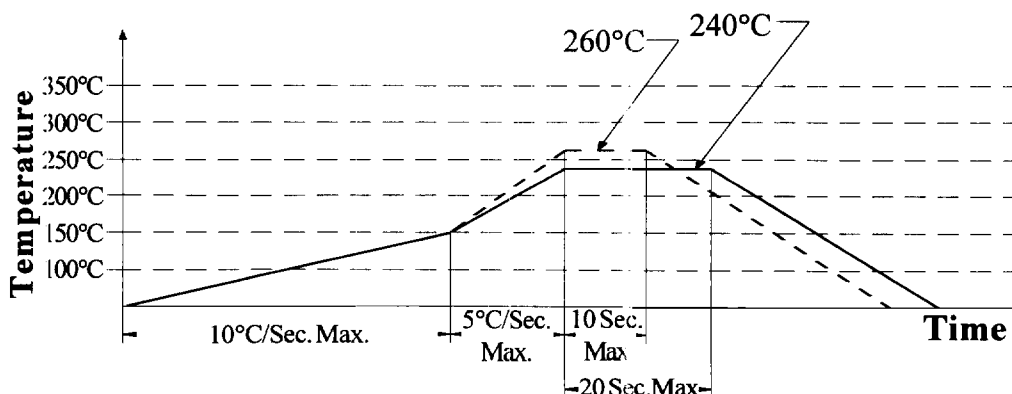
### Suggested Solder Pad Layout



METRIC CONVERSION	
6.300mm	=0.248"
4.500mm	=0.177"
3.200mm	=0.126"
2.500mm	=0.098"
1.400mm	=0.055"
0.900mm	=0.035"
0.200mm	=0.008"

UNLESS OTHERWISE SPECIFIED  
All Dimensions In Millimeters  
Tolerances = +/-0.2mm

### Recommended Solder Reflow Diagram



#### Soldering:

Wave Reflow Soldering: - - -  
Reflow Soldering: \_\_\_\_\_  
Soldering Iron: Temperature shall not exceed 350°C within 3 seconds.  
Soldering iron time allowed only once (not shown on graph).