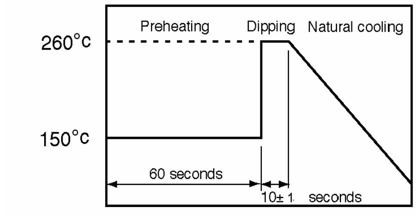
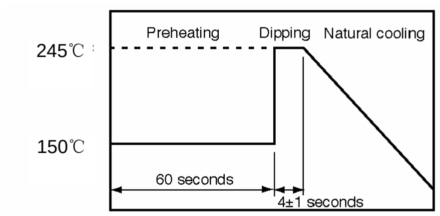
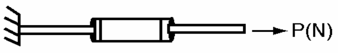
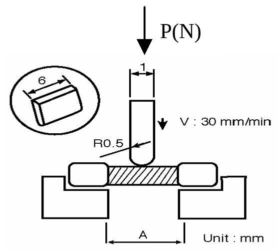
MAGNETIC TECHNOLOGY WORLDWIDE SDN BHD/ KEENTECH

Multilayer Chip Inductors
TL & TF Series

Reliability Test

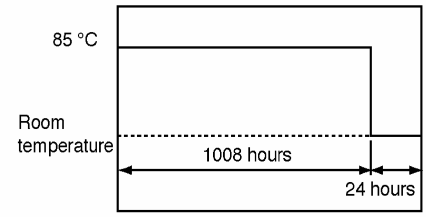
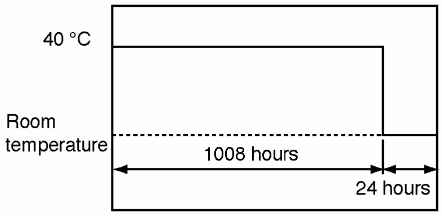
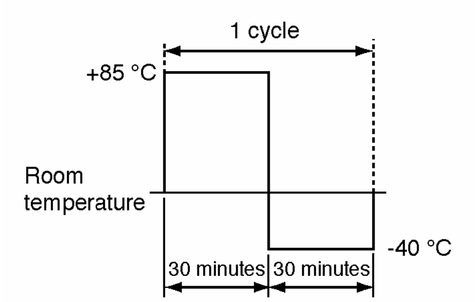
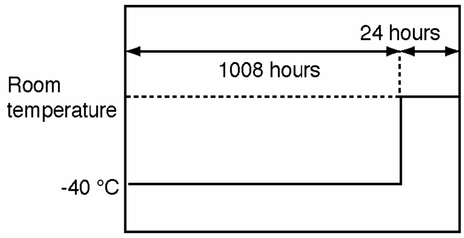
Item	Performance	Test condition
Operating temperature range	-55 °C to + 125 °C	
Storage temperature and umidity ranges	40 °C MAX., 70% RH MAX.	
Soldering heat resistance	The chip shall not be cracks. More than 75% of terminal electrode shall be covered with solder.	Preheat: 150 °C, 60 seconds Solder temperature : 260 ± 5 °C Flux: Rosin Dip time: 10 ± 1 seconds 
Solderability	More than 90% of the terminal electrode shall be covered with new solder.	Preheat: 150 °C, 60 seconds Solder temperature: 245 ± 5 °C Flux: Rosin Dip time: 4 ± 1 seconds 
Terminal strength	The terminal electrode and the body shall not be damaged by the forces applied on the right conditions. 	

Type	P (kgf)	Time (s)
T□100505	0.3	30 ± 5
T□160808	0.5	
T□201209	0.6	
T□201212	0.8	
T□321611	1.0	

Item	Performance	Test condition
Bending strength	The body shall not be damaged by the forces applied on the right conditions. 	

Type	A (mm)	P (kgf)
T□160808	1.0	0.5
T□201209	1.4	1.0
T□201212	1.4	1.2
T□321611	2.0	2.0

Reliability Test

Item	Performance	Test Condition
High temperature resistance	Appearance: Ferrite shall not be damaged. Inductance: Within±10% of the initial value. Q: Within±30% of the initial value.	Temperature: 85±2℃ Testing time: 1008±12 hours Measurement: After placing for 24 hours min. 
Humidity resistance	Appearance: Ferrite shall not be damaged. Inductance: Within±10% of the initial value Q: Within±30 % of the initial value.	Humidity: 90 to 95% RH Temperature: 40±2℃ Testing time: 1008±12 hours Measurement: After placing for 24 hours min. 
Thermal Shock	Appearance: Cracking, chipping or any other defects harmful to the characteristics shall Not be allowed. Inductance: Within±10% of the initial value Q: Within±30% of the initial value.	Temperature: -40℃, +85℃, kept stabilized for 30 minutes each Cycle: 100 cycles Measurement: After placing for 24 hours min. 
Low temperature storage life test	Appearance: Cracking, chipping or any other defects harmful to the characteristics shall not be allowed. Inductance: Within±10% of the initial value. Q: Within±30% of the initial value.	Temperature: -40±2℃ Testing time: 1008±12 hours Measurement: After placing for 24 hours min. 

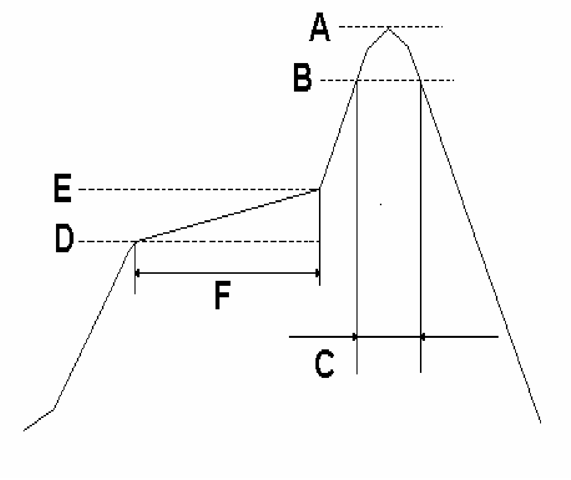
Multilayer Chip Inductors
TL & TF Series

Reliability Test

✱ **Recommended Soldering Conditions**

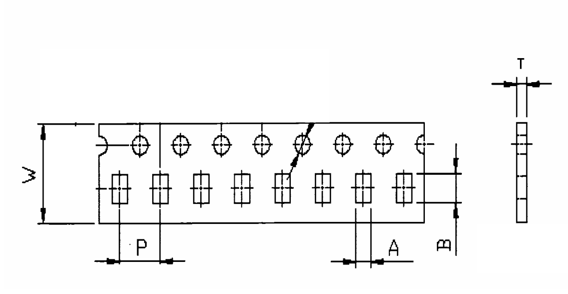
(Reflow Temperature Profile) Lead-Free

A	260 ± 5 ℃
B	230 ± 5 ℃
C	30 ± 10 sec
D	150 ℃
E	180 ℃
F	90 ± 30 sec

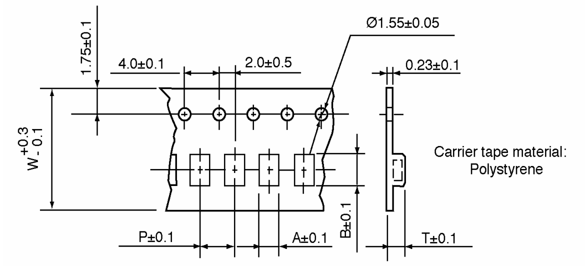


Packaging

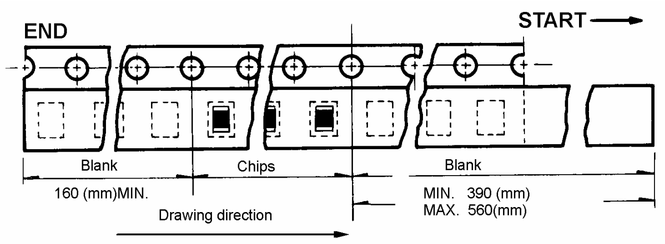
✱ Carrier tape material：Paper



Carrier tape material：Plastic

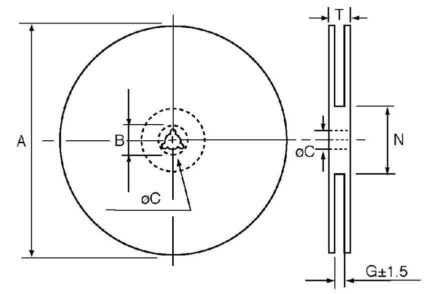


Material：Paper (Dimensions in mm)						
TYPE	A	B	W	P	T	CHIPS / REEL
100505	0.62	1.12	8	2	0.60	10000
160808	1.10	1.90	8	4	0.95	4000
201209	1.50	2.30	8	4	0.95	4000
Material：Plastic (Dimensions in mm)						
TYPE	A	B	W	P	T	CHIPS / REEL
160808	1.01	1.80	8	4	1.02	4000
201209	1.42	2.25	8	4	1.04	4000
201212	1.50	2.35	8	4	1.45	2000
321611	1.88	3.50	8	4	1.27	3000



✱ Reel dimensions

Material：Plastic



Dimensions in mm

TYPE	8mm	12mm
A	178±2	178±2
B	21.0±0.8	21.0±0.8
C	13.0±0.8	13.0±0.8
G	10.0	14.0
N	75	75
T	12.5	16.5