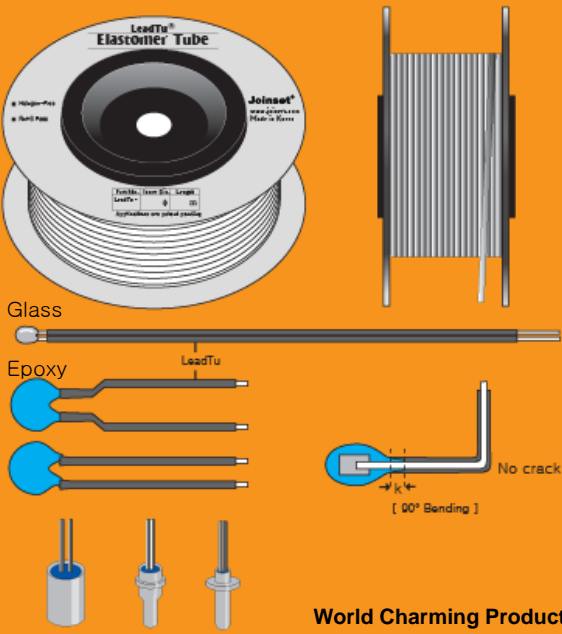


Expandable & Self-Shrinkable Insulation Tube



1 LeadTu™?

LeadTu™ is an insulation tube having expansion and self-shrink property.

- Due to expansion and shrink property, it sticks well with wire. (Good sealing)
- Protect wire from moisture and friction.
- Offers superior heat-resistance and insulation.
- Offers good flexibility and elasticity.

2 How to use :

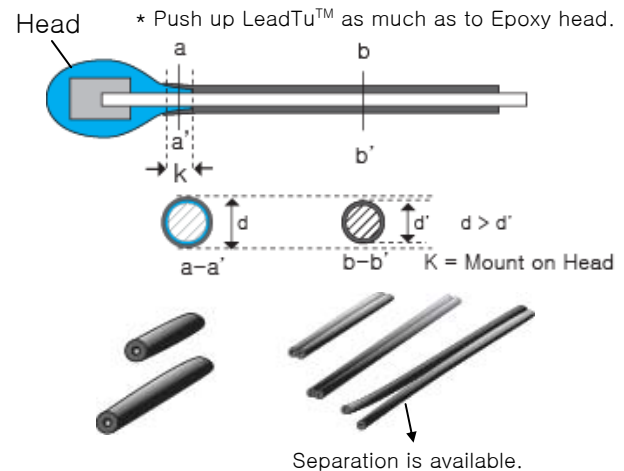
1. Choose a LeadTu at diameter.
LeadTu Inner diameter should be a little bigger than wire thickness.
2. Cut LeadTu as per the length what you want.
3. Push up LeadTu to cover some bottom part of Epoxy head.

3 Features :

1. Easy expansion and self-shrink. High reliability
2. Can cover some bottom part of epoxy head with LeadTu.
3. Good heat-resistance, Flame-retardant (UL 94-V1), Insulation, flexibility, Elasticity.
4. Halogen Free, Compliant with Eu-RoHS
5. No crack and transform at 90 angle Bending test.

4 Application :

1. Lead type Thermistor, Capacitor, Varistor, Inductor and Assay.
2. Components sealing is required.
3. Replacement against Heat-shrink tube, PI tube, Teflon tube.



5 Material Property :

Material	Opera. Temp.	Dielectric Strength	Elongation	Tensile Strength	Hardness	Mechanical Property
Heat-resistant Elastomer	-40~200℃	Min.20kV / mm	Min.220%	Min. 50kgf/cm ²	Shore A65	Resilient

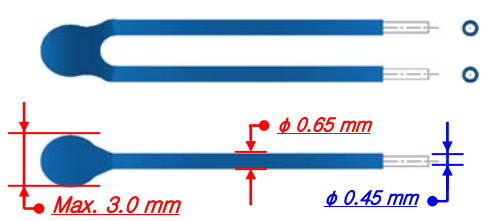
6 P/N and Packaging

P/N	Inner Dia.(mm)	Outer Dia.(mm)	Color	Wire Diameter	Packaging	Section
LeadTu-035	Min.0.35	Ave.0.80	Black	0.27-0.31mm	306M / 1 roll (1,000 Feet)	Epoxy Lead
LeadTu-040	Min.0.40	Ave.0.90		0.37-0.41mm		Single
LeadTu-045	Min.0.45	Ave.1.00		0.42-0.46mm		
LeadTu-030P	Min.0.30 × 2	Ave.0.60 × 2		0.15-0.20mm	153M / 1 roll (500 Feet)	Glass Lead
LeadTu-035P	Min.0.35 × 2	Ave.0.70 × 2		0.20-0.25mm		Pair
LeadTu-040P	Min.0.40 × 2	Ave.0.90 × 2		0.25-0.30mm		

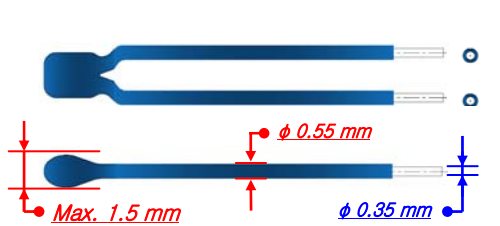
Remarks : This data is just for reference, so could be changed without any notice.
Our customer can use LeadTu at ceramic assembly.

Insulation Coated Lead wire Thermistor

RA, RB type : Normal type



RBS type : Small Size



World Charming Product

1 LeadCoTh ?

LeadCoTh is an insulation coated NTC Thermistor and it has good properties such as flexibility, sealing and high voltage withstand. Thanks to automatic production, it has high quality and can offer low price.

2 LeadCo™ Features :

- Good insulation and high voltage withstand.
- Good flexibility and high performance at bending test (no crack).
- Due to high sealing, it is safe against moisture.
- Halogen free, compliant with EU-RoHS.

3 Applications :

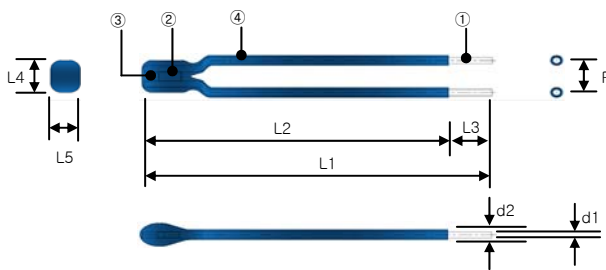
- 2nd battery (notebook, cell phone) & PC CPU
- Temperature sensing and compensation in various elec. devices.
- Application which insulated wire is need. [RA, RB type]
- Application which narrow space and insulation is need [RBS type]

4 How to order

Part No. : R** 103 F 3435 F ** CO L1 L3
 ① ② ③ ④ ⑤ ⑥ ⑦ ⑧ ⑨

①	R**	RA, RB, RBS	⑦	CO	Round wire [Φ0.35, Φ0.45]
②	103	103=10×10 ³ (Ω) @25℃±0.2℃		CF	Square wire [0.65mm × 0.15mm]
③	F	Resistance tolerance. F : 1%		CS	Special type [CO+Film]
④	3435	B(25/85)	⑧	L1	Total length (mm)
⑤	F	B tolerance. F : 1%	⑨	L3	Naked wire length (mm)
⑥	**	** : Customer code [01, 02, 03 ……]			

5 Size [standard]



Item	Material	Remarks
1	Wire RA,RB:Cu-Sn RBS:Fe-Cu-Sn	RA,RB:φ0.45mm RBS:φ0.35mm
2	Chip	NTC RA,RB:Bare chip RBS:Joinchip[JTH]
3	Head	Epoxy Blue
4	Coating	Epoxy Blue

Unit : mm

Type	L1	L2	L3	L4	L5	P	d1	d2	Remarks
RA, RB	Max. 70	Max. 68	Typ. 2.0	Max. 4.0	Max. 3.0	Typ. .2.0	φ0.45	Typ. φ0.65	
RBS	Max. 70	Max. 68	Typ. 2.0	Max. 2.0	Max. 1.5	Typ. 1.8	φ0.35	Typ. φ0.55	

6 Property

Material	Operating temperature	Voltage withstand	Hardness	Bending property	Sealing and friction
Epoxy	-30~120℃	Min. 1KV	Shore D75	No crack after 5 times 90° bending	No peel by rubbing

7 Comparison data

Item	LeadCoTh	Enamel Wire type	Cable Wire type	Film type
Shape				
Reliability	◎	▲	▲	●
Productivity	◎	×	×	▲
Operating	Automatic	Semi-automatic	Semi-automatic	Semi-automatic
Reel Taping	Available	not available	not available	not available
Halogen Free / EU-RoHS	Compliant	Compliant	Compliant	Compliant
Total length	Max. 70mm	No limit	No limit	Max. 100mm

[◎ very good ● : good ▲ : not bad × : poor]

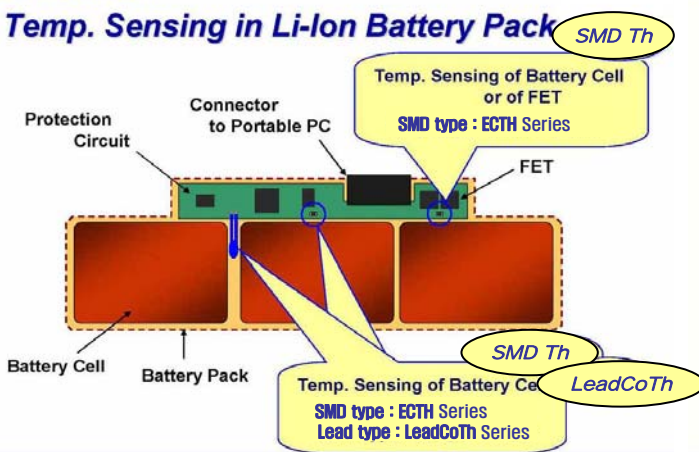
8 Reliability test [Bending & Voltage withstand]

Bending	Voltage withstand
<p>1. Put LeadCoTh on JIG and do bend it under 5 times at <u>90°</u>.</p>	<p>1. Tester : [KIKUSUI TOS5050] Charge <u>1KV for 1 second.</u></p>

9 Applications [RBS Type : Small size]

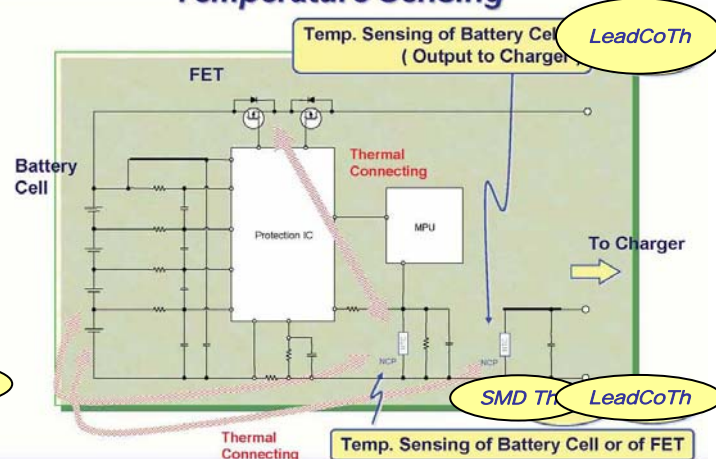
NTC Thermistor

Temp. Sensing in Li-Ion Battery Pack



Li-ion battery pack

Temperature Sensing



Li-ion battery pack