Leiditech

HL130-010~250 Series

Positive Thermal Coefficent Diodes

Features：

- ✧ Radial leaded Devices
- ✧ Cured,flame retardant epoxy polymer insulating material meets UL94V-0
- ✧ RoHS compliant and lead-free

Product Dimensions

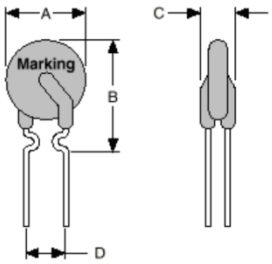


Fig.1

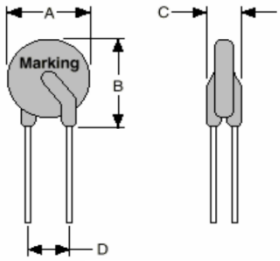


Fig.2

Unit :mm

Model	Dimensions（mm）				Lead material	Shape
	A(max)	B(max)	C(max)	D(typ)	Tinned metal(mm)	Fig
HL130-010	7.4	12.7	3.8	5.1	22AWG/Φ0.6	1
HL130-015	7.4	13.0	3.8	5.1	22AWG/Φ0.6	1
HL130-017	7.4	13.5	3.8	5.1	22AWG/Φ0.6	1
HL130-020	7.6	13.5	3.8	5.1	22AWG/Φ0.6	1
HL130-025	7.6	13.5	3.8	5.1	22AWG/Φ0.6	1
HL130-030	8.0	14.0	3.8	5.1	22AWG/Φ0.6	1
HL130-040	9.4	15.0	3.8	5.1	22AWG/Φ0.6	1
HL130-050	10.2	15.2	3.8	5.1	22AWG/Φ0.6	1
HL130-065	12.8	18.0	3.8	5.1	22AWG/Φ0.6	1
HL130-075	12.8	18.0	3.8	5.1	22AWG/Φ0.6	1
HL130-090	14.5	19.6	3.8	5.1	20AWG/Φ0.8	2
HL130-110	16.3	21.3	3.8	5.1	20AWG/Φ0.8	2
HL130-135	17.0	22.0	3.8	5.1	20AWG/Φ0.8	2
HL130-160	20	25	3.8	5.1	20AWG/Φ0.8	2
HL130-185	22	23	3.8	5.1	20AWG/Φ0.8	2
HL130-200	25	27	3.8	10.2	20AWG/Φ0.8	2
HL130-250	27	32	3.8	10.2	20 AWG/Φ0.8	2

Note: Dimensions in the A, B, C are the maximum sizes, all typical values of D is at the tolerance of ± 0.75mm.

Thermal Derating Chart-I_H（A）

Model	Maximum ambient operating temperatures（℃）								
	-40	-20	0	25	40	50	60	70	85
HL130-010	0.15	0.13	0.12	0.10	0.085	0.076	0.067	0.060	0.047
HL130-015	0.22	0.20	0.18	0.15	0.13	0.11	0.10	0.09	0.07
HL130-017	0.25	0.22	0.20	0.17	0.14	0.13	0.11	0.10	0.08
HL130-020	0.29	0.26	0.24	0.20	0.17	0.15	0.13	0.12	0.09
HL130-025	0.37	0.33	0.30	0.25	0.21	0.19	0.17	0.15	0.12
HL130-030	0.44	0.40	0.35	0.30	0.26	0.23	0.20	0.18	0.14
HL130-040	0.59	0.53	0.47	0.40	0.34	0.30	0.27	0.24	0.19
HL130-050	0.74	0.66	0.59	0.50	0.43	0.38	0.34	0.30	0.24
HL130-065	0.96	0.86	0.77	0.65	0.55	0.49	0.44	0.39	0.31
HL130-075	1.10	0.99	0.89	0.75	0.64	0.57	0.50	0.45	0.35
HL130-090	1.32	1.19	1.06	0.90	0.77	0.68	0.60	0.54	0.42
HL130-110	1.62	1.45	1.30	1.10	0.94	0.84	0.74	0.66	0.52
HL130-135	1.98	1.78	1.59	1.35	1.15	1.03	0.90	0.81	0.63
HL130-160	2.35	2.11	1.89	1.60	1.36	1.22	1.07	0.96	0.75
HL130-185	2.72	2.44	2.18	1.85	1.57	1.41	1.24	1.11	0.87
HL130-200	2.94	2.64	2.36	2.00	1.70	1.52	1.34	1.20	0.94
HL130-250	3.68	3.30	2.95	2.50	2.13	1.90	1.68	1.50	1.18

Electrical Characteristics

Model	I_H（A）	I_T(A)	Vmax（V）	Imax（A）	P_d （W）	Maximum Time-to-trip		Resistance(Ω)
						Current （A）	Time（S）	Rmin- Rmax
HL130-010	0.10	0.20	130	3	0.8	0.5	6	2.5-9.0
HL130-015	0.15	0.30	130	3	0.8	0.75	5.5	2.5-7.5
HL130-017	0.17	0.34	130	3	0.8	0.85	5.2	1.5-7.0
HL130-020	0.20	0.40	130	3	0.8	1.0	5.0	1.9-4.0
HL130-025	0.25	0.50	130	3	1.0	1.25	4.8	1.45-3.50
HL130-030	0.30	0.60	130	3	1.0	1.5	4.5	1.0-3.0
HL130-040	0.40	0.80	130	3	1.0	2.0	4.5	0.75-2.0
HL130-050	0.50	1.0	130	3	1.0	2.5	5.0	0.50-1.60
HL130-065	0.65	1.3	130	10	1.0	3.25	5.2	0.45-1.0

HL130-075	0.75	1.5	130	10	1.0	3.75	5.5	0.40-0.90
HL130-090	0.90	1.8	130	10	1.5	4.5	5.8	0.30-0.70
HL130-110	1.10	2.2	130	10	1.8	5.5	6.3	0.20-0.65
HL130-135	1.35	2.7	130	10	1.8	6.75	7.5	0.15-0.60
HL130-160	1.60	3.2	130	10	2.0	8.0	8	0.10-0.50
HL130-185	1.85	3.7	130	10	2.0	9.25	9	0.10-0.40
HL130-200	2.00	4.0	130	10	2.2	10.0	10	0.10-0.30
HL130-250	2.50	5.0	130	10	2.5	12.5	12	0.05-0.25

I_H=Hold current:Maximum current at which the device will not interruptin 25℃ still air.

I_T=Trip current:Minimum current at which the device from low resistance to high resistance in 25℃ still air.

V_{max}=Maximum continuousvoltage device can withstand without damage at rated current.

I_{max}=Maximum fault current device can withstand without damage at rated voltage.

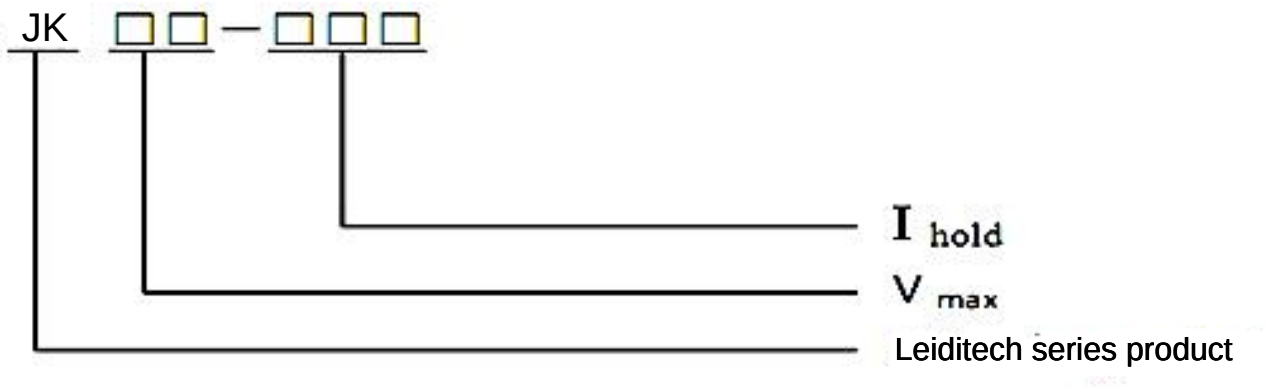
Maximum Time-to-trip:Maximum time to trip at assigned current.

P_d=Typical power dissipation:Typical amount of power dissipated from the device when in 25℃ still air environment.

R_{min}=Minimum resistance of device at 25℃ prior to tripping.

R_{max}=Maximum resistance of device at 25℃ prior to tripping.

Marking System



Environmental Specifications

Test	Conditions	Resistance change
Passive Aging	+85℃，1000hours	±8% typical
Humidity Aging	+85℃，85%R.H.1000hours	±8% typical
Thermal Shock	+125℃ to -55℃，10 Times	±12% typical
SolventResistance	MIL-STD-202，Method 215F	No change
Vibration	MIL-STD-202，Method 201	No change

Solderingmethod

Wave Soldering

Soldering Temperature:260℃~270℃

Soldering Time:≤3sec

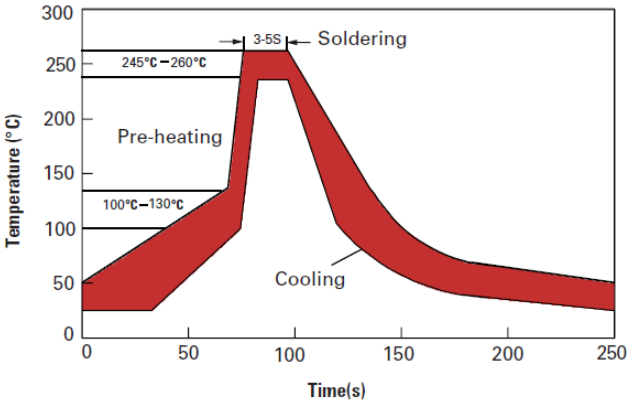
Soldering Position: Resettable fuse lead and the distance fromthe bottom ≥ 6mm

Manual soldering

Soldering Temperature:250℃~280℃

Soldering Time: ≤3sec

Soldering Position: Resettable fuse lead and the distance fromthe bottom ≥ 6mm



Storage

The maximum ambient temperature shall not exceed 40℃.Storage temperature higher than 40℃ could result in the deformation of packaging materials.The maximum relative humidity recommended for storage is 70%.High humidity with high temperature can accelerate the oxidation of the solder plating on the leads and reduce the solderability of the components.Sealed plastic bags with desiccant shall be used to reduce the oxidation of the leads and shall only be opened prior to use.The products shall not be stored in areas where harmful gases containing acid or alkali or other harmful substancesare present.

Shanghai Leiditech Electronic Co.,Ltd
Email: sale1@leiditech.com
Tel : +86- 021 50828806
Fax : +86- 021 50477059