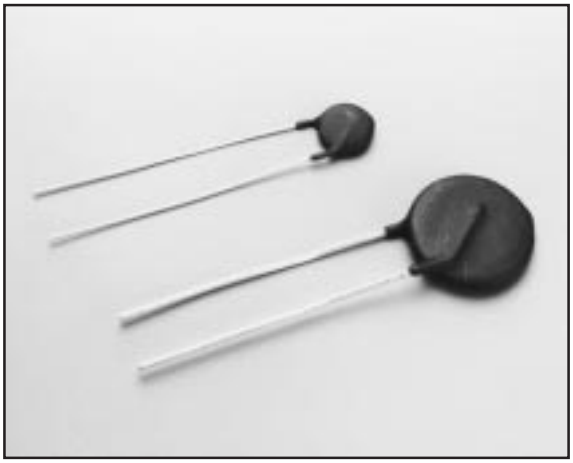
NTC THERMISTORS: TYPE CL

NTC DISCS FOR INRUSH CURRENT LIMITING

DESCRIPTION:

Disc thermistor with uninsulated lead-wires.



FEATURES:

- Low cost solid state device for inrush current suppression
- Excellent mechanical strength
- Wide operating temperature range: -50°C to 175°C
- Suitable for PCB mounting
- Available as a standard with kinked leads and on tape and reel to EIA RS-468A for automatic insertion

TYPE Fig. 1	Res @ 25°C ±25% (ohms)	Max* Steady State Current AMPS (RMS)	Disc Dia. (Max) (in.)	Disc Thick. (Max) (in.)	Lead Spacing (Ref.) (in.)	Lead Dia. AWG	C_X (max)** µFarads		Equation constants for resistance under load ***			Approx. Res. Under Load at % Max. Rated Current				Diss. Const. (mW/°C)	Time Const. (sec.)
							@120 VAC	@240 VAC	X	Y	Current Range Min. I / Max. I	25%	50%	75%	100%		
CL-11	0.7	12	0.77	0.22	0.328	18	2700	600	0.50	-1.18	4.0≤ 1≤ 12	14	.06	.04	.02	25	100
CL-21	1.3	8	0.55	0.21	0.328	18	800	200	0.60	-1.25	3.0≤ 1≤ 8.0	.25	.09	.06	.04	15	60
CL-30	2.5	8	0.77	0.22	0.328	18	6000	1500	0.81	-1.25	2.5≤ 1≤ 8.0	.34	.14	.09	.06	25	100
CL-40	5	6	0.77	0.22	0.328	18	5200	1300	1.09	-1.27	1.5≤ 1≤ 6.0	.65	.27	.16	.11	25	100
CL-50	7	5	0.77	0.26	0.328	18	5000	1250	1.28	-1.27	1.5≤ 1≤ 5.0	.96	.40	.24	.16	25	120
CL-60	10	5	0.77	0.22	0.328	18	5000	1250	1.45	-1.30	1.2≤ 1≤ 5.0	1.09	.44	.26	.18	25	100
CL-70	16	4	0.77	0.22	0.328	18	5000	1250	1.55	-1.26	1.0≤ 1≤ 4.0	1.55	.65	.39	.27	25	100
CL-80	47	3	0.77	0.22	0.328	18	5000	1250	2.03	-1.29	0.5≤ 1≤ 3.0	2.94	1.20	.71	.49	25	100
CL-90	120	2	0.93	0.22	0.328	18	5000	1250	3.04	-1.36	0.5≤ 1≤ 2.0	7.80	3.04	1.75	1.18	30	120
CL-101	0.5	16	0.93	0.22	0.328	18	4000	1000	0.44	-1.12	4.0≤ 1≤ 16	.09	.04	.03	.02	30	120
CL-110	10	3.2	0.40	0.17	0.250	24	600	150	0.83	-1.29	0.7≤ 1≤ 3.2	1.10	.45	.27	.18	8	30
CL-120	10	1.7	0.40	0.17	0.250	24	600	150	0.61	-1.09	0.4≤ 1≤ 1.7	1.55	.73	.46	.34	4	90
CL-130	50	1.6	0.45	0.17	0.250	24	600	150	1.45	-1.38	0.4≤ 1≤ 1.6	5.13	1.97	1.13	.75	8	30
CL-140	50	1.1	0.45	0.17	0.250	24	600	150	1.01	-1.28	0.2≤ 1≤ 1.1	5.27	2.17	1.28	.89	4	90
CL-150	5	4.7	0.55	0.18	0.328	22	1600	400	0.81	-1.26	1.0≤ 1≤ 4.7	.66	.27	.16	.11	15	110
CL-160	5	2.8	0.55	0.18	0.328	22	1600	400	0.60	-1.05	0.8≤ 1≤ 2.8	.87	.42	.27	.20	9	130
CL-170	16	2.7	0.55	0.18	0.328	22	1600	400	1.18	-1.28	0.5≤ 1≤ 2.7	1.95	.80	.48	.33	15	110
CL-180	16	1.7	0.55	0.18	0.328	22	1600	400	0.92	-1.18	0.4≤ 1≤ 1.7	2.52	1.11	.69	.49	9	130
CL-190	25	2.4	0.55	0.18	0.328	22	800	200	1.33	-1.34	0.5≤ 1≤ 2.4	2.63	1.04	.60	.41	15	110
CL-200	25	1.7	0.55	0.18	0.328	22	800	200	0.95	-1.24	0.4≤ 1≤ 1.7	2.74	1.18	.70	.49	9	130
CL-210	30	1.5	0.40	0.20	0.250	24	600	150	1.02	-1.35	0.3≤ 1≤ 1.5	3.83	1.50	.87	.60	8	30

OPTIONS:

- For kinked leads, add suffix "A"
- For tape and reel, add suffix "B"
- For tape and reel, add suffix "AB"
- Other tolerances in the range 0.7Ω to 120Ω
- Other tolerances, tolerances at other temperatures
- Alternative lead lengths, lead materials, insulations

DATA:

*maximum rating at 25ºC or

$I_{derated} = \sqrt{(1.1425 - 0.0057 \times T_A)} \times I_{max}$ @ 25°C

for ambient temperatures other than 25ºC.

**maximum ratings

***$R_o = X1^Y$ where X and Y are found in the table above