LP60 series *R-line Device*

Features

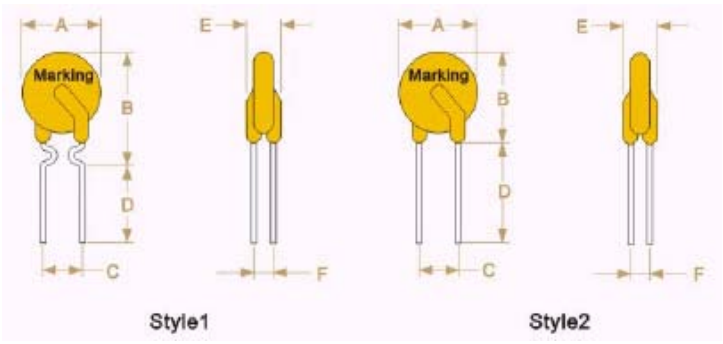
- ☐ Radial leaded devices
- ☐ Cured, flame retardant epoxy polymer insulating material meets UL94 V-0 requirements
- ☐ Lead-free and compliant with the European Union RoHS Directive 2002/95/EC
- ☐ Agency Recognition: UL、CSA、TUV

Applications

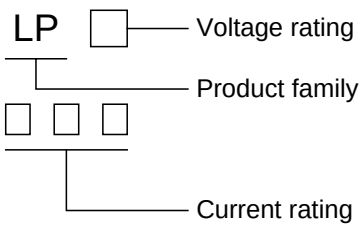
- ☐ Power supply
- ☐ High capability battery
- ☐ Motors and Wire harness
- ☐ USB ports
- ☐ Linear AC/DC adapters
- ☐ Transformers

Product Dimensions

Part number	A	B	C	D	E	F	Lead	
	Max.	Max.	Typ.	Min.	Max.	Typ.	Style	Size(Φ)
LP60-005	5.7	10.5	5.1	7.6	3.1	1.1	1	0.6
LP60-010	5.7	10.9	5.1	7.6	3.1	1.1	1	0.6
LP60-017	5.8	11.1	5.1	7.6	3.1	1.1	1	0.6
LP60-020	5.9	11.2	5.1	7.6	3.1	1.1	1	0.6
LP60-025	6.1	11.4	5.1	7.6	3.1	1.1	1	0.6
LP60-030	7.6	13.4	5.1	7.6	3.1	1.1	1	0.6
LP60-040	7.7	13.6	5.1	7.6	3.1	1.1	1	0.6
LP60-050	7.9	13.7	5.1	7.6	3.1	1.1	1	0.6
LP60-065	9.7	14.5	5.1	7.6	3.1	1.1	1	0.6
LP60-075	10.7	15.5	5.1	7.6	3.1	1.1	1	0.6
LP60-090	11.7	16.5	5.1	7.6	3.1	1.1	1	0.6
LP60-110	13.0	16.7	5.1	7.6	3.1	1.4	2	0.8
LP60-135	15.7	17.6	5.1	7.6	3.1	1.4	2	0.8
LP60-160	16.7	19.7	5.1	7.6	3.1	1.4	2	0.8
LP60-185	17.8	22.9	5.1	7.6	3.1	1.4	2	0.8
LP60-250	21.3	23.5	10.2	7.6	3.1	1.4	2	0.8
LP60-300	24.9	27.4	10.2	7.6	3.1	1.4	2	0.8
LP60-375	28.5	32.5	10.2	7.6	3.1	1.4	2	0.8



Marking system



* Lead materials: Tin-plate metal wire.

Electrical Characteristics

Part number	I_H	I_T	T_{trip}	V_{max}	I_{max}	Pd_{typ}	R_{min}	R_{max}
	(A)	(A)	(S)	(V)	(A)	(W)	(Ω)	(Ω)
LP60-005	0.05	0.10	5.0	60	40	0.26	7.30	11.10
LP60-010	0.10	0.20	8.0	60	40	0.51	2.50	4.50
LP60-017	0.17	0.34	5.0	60	40	0.60	2.00	3.20
LP60-020	0.20	0.40	3.6	60	40	0.52	1.50	2.84
LP60-025	0.25	0.50	3.2	60	40	0.52	1.00	1.95
LP60-030	0.30	0.60	3.0	60	40	0.59	0.76	1.36
LP60-040	0.40	0.80	3.8	60	40	0.66	0.52	0.86
LP60-050	0.50	1.00	4.0	60	40	0.80	0.41	0.77
LP60-065	0.65	1.30	5.3	60	40	0.90	0.27	0.48
LP60-075	0.75	1.50	6.3	60	40	0.95	0.18	0.40
LP60-090	0.90	1.80	7.2	60	40	1.00	0.14	0.31
LP60-110	1.10	2.20	8.2	60	40	1.51	0.14	0.25
LP60-135	1.35	2.70	9.6	60	40	1.71	0.12	0.19
LP60-160	1.60	3.20	11.4	60	40	1.98	0.09	0.14
LP60-185	1.85	3.70	12.6	60	40	2.10	0.08	0.12
LP60-250	2.50	5.00	15.6	60	40	2.50	0.05	0.08
LP60-300	3.00	6.00	19.8	60	40	2.80	0.04	0.06
LP60-375	3.75	7.50	24.0	60	40	3.20	0.03	0.05

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

I_T=Trip current: minimum current at which the device will always trip at 25℃ still air.

$V_{max\ interrupt}$=Maximum interrupt voltage device can withstand without damage at rated current.

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

T_{trip}=Maximum time to trip at assigned current.

Pd_{typ}=Typical power dissipation: typical amount of power dissipated by the device when in state air environment.

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

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

Thermal Derating Chart-Ih(A)

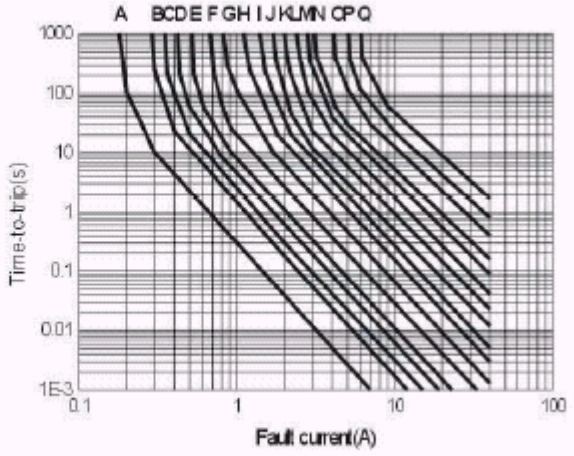
Part number	Maximum ambient operating temperatures(℃)								
	-40	-20	0	25	40	50	60	70	85
LP60-005	0.077	0.069	0.061	0.050	0.044	0.040	0.036	0.032	0.025
LP60-010	0.18	0.15	0.13	0.10	0.08	0.07	0.06	0.05	0.03
LP60-017	0.28	0.24	0.20	0.17	0.14	0.12	0.10	0.09	0.06
LP60-020	0.34	0.29	0.25	0.20	0.16	0.14	0.13	0.10	0.07
LP60-025	0.42	0.36	0.31	0.25	0.20	0.18	0.16	0.12	0.09
LP60-030	0.52	0.44	0.38	0.30	0.24	0.22	0.18	0.14	0.10
LP60-040	0.66	0.57	0.50	0.40	0.32	0.29	0.24	0.20	0.14
LP60-050	0.83	0.74	0.63	0.50	0.41	0.36	0.30	0.25	0.18
LP60-065	1.10	0.95	0.82	0.65	0.53	0.47	0.40	0.33	0.24
LP60-075	1.26	1.11	0.95	0.75	0.61	0.54	0.45	0.39	0.28
LP60-090	1.52	1.30	1.15	0.90	0.73	0.65	0.55	0.47	0.33
LP60-110	1.82	1.60	1.35	1.10	0.89	0.79	0.65	0.55	0.40
LP60-135	2.20	1.91	1.65	1.35	1.09	0.96	0.80	0.68	0.50
LP60-160	2.60	2.30	1.95	1.60	1.30	1.13	1.00	0.80	0.60
LP60-185	3.00	2.63	2.30	1.85	1.50	1.33	1.12	0.92	0.67
LP60-250	4.05	3.58	3.02	2.50	2.02	1.80	1.55	1.30	0.90
LP60-300	4.82	4.16	3.62	3.00	2.43	2.16	1.85	1.50	1.09
LP60-375	6.02	5.19	4.50	3.75	3.02	2.68	2.30	1.95	1.39

Test Procedures And Requirements

Test	Test Conditions	Accept/Reject Criteria
Resistance	In still air @ 25℃	$R_{min} \leqslant R \leqslant R_{max}$
Time to Trip	Specified current, V_{max}, 25℃	T≤maximum Time to Trip
Hold Current	30min, at I_H	No trip
Trip Cycle Life	V_{max}, I_{max}, 100cycles	No arcing or burning
Trip Endurance	V_{max}, 24hours	No arcing or burning

Typical Time-to-trip Charts at 25℃

A=LP60-010
B=LP60-017
C=LP60-020
D=LP60-025
E=LP60-030
F=LP60-040
G=LP60-050
H=LP60-065
I=LP60-075
J=LP60-090
K=LP60-110
L=LP60-135
M=LP60-160
N=LP60-185
O=LP60-250
P=LP60-300
Q=LP60-375



Package Information

Bulk:
LP60-005~LP60-185……1000pcs per bag
LP60-250~LP60-375…… 500pcs per bag

Tape & Reel:
LP60-005~LP60-090……3000pcs per reel

Notices:

The devices are intended for protection against occasional overcurrent or overtemperature fault conditions and should not be used when repeated fault conditions are anticipated.

Operation beyond maximum ratings or improper use may result in device damage and possible electrical arcing and flame.