



Features

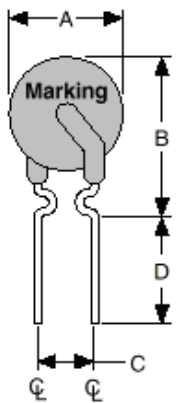
- Radial leaded devices
- UL94 V-0 insulating material
- Agency Recognition: UL、CSA、TUV
- Lead-free and compliant with the European Union RoHS Directive 2011/65/EU



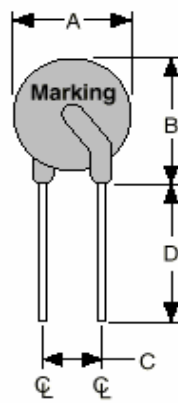
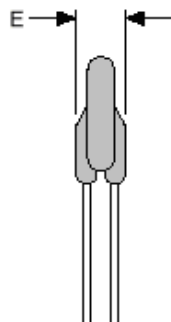
LP60 series

Product Dimensions

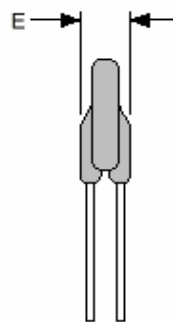
Part number	A		B		C		D		E		Lead	
	Max.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Style	Size(ϕ)		
LP60-005F	4.0	10.5	4.4	5.8	7.6	3.1	1	0.5				
LP60-010F	4.0	10.5	4.4	5.8	7.6	3.1	1	0.5				
LP60-017F	4.0	10.5	4.4	5.8	7.6	3.1	1	0.5				
LP60-020F	5.5	10.5	4.4	5.8	7.6	3.1	1	0.5				
LP60-025F	5.5	10.5	4.4	5.8	7.6	3.1	1	0.5				
LP60-030F	7.7	12.7	4.4	5.8	7.6	3.1	1	0.5				
LP60-040F	7.7	12.7	4.4	5.8	7.6	3.1	1	0.6				
LP60-050F	7.7	12.7	4.4	5.8	7.6	3.1	1	0.6				
LP60-065F	10.0	15.0	4.4	5.8	7.6	3.1	1	0.6				
LP60-075F	11.0	16.0	4.4	5.8	7.6	3.1	1	0.6				
LP60-090F	12.0	17.0	4.4	5.8	7.6	3.1	1	0.6				
LP60-110F	13.0	18.0	4.4	5.8	7.6	3.1	2	0.8				
LP60-135F	15.0	20.0	4.4	5.8	7.6	3.1	2	0.8				
LP60-160F	16.0	21.0	4.4	5.8	7.6	3.1	2	0.8				
LP60-185F	18.0	23.0	4.4	5.8	7.6	3.1	2	0.8				
LP60-250F	21.5	26.5	9.5	10.9	7.6	3.1	2	0.8				
LP60-300F	25.0	30.0	9.5	10.9	7.6	3.1	2	0.8				
LP60-375F	28.5	33.5	9.5	10.9	7.6	3.1	2	0.8				



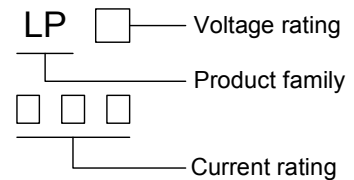
Style1



Style2



Marking system



* Lead materials: Tin-plate metal wire.

Electrical Characteristics

Part number	I _H (A)	I _T (A)	Max.Time-to-trip (A) (S)		V _{max} (V)	I _{max} (A)	Pd _{typ} (W)	R _{min} (Ω)	R _{max} (Ω)	R _{1max} (Ω)
LP60-005F	0.05	0.10	0.25	5.0	60	40	0.26	7.30	11.10	20.00
LP60-010F	0.10	0.20	0.50	8.0	60	40	0.51	2.50	4.50	7.50
LP60-017F	0.17	0.34	0.85	5.0	60	40	0.60	2.00	3.20	5.70
LP60-020F	0.20	0.40	1.00	3.6	60	40	0.52	1.50	2.84	4.50
LP60-025F	0.25	0.50	1.25	3.2	60	40	0.52	1.00	1.95	3.00
LP60-030F	0.30	0.60	1.50	3.0	60	40	0.59	0.76	1.36	2.15
LP60-040F	0.40	0.80	2.00	3.8	60	40	0.66	0.52	0.86	1.29
LP60-050F	0.50	1.00	2.50	4.0	60	40	0.80	0.41	0.77	1.17
LP60-065F	0.65	1.30	3.25	5.3	60	40	0.90	0.27	0.48	0.72
LP60-075F	0.75	1.50	3.75	6.3	60	40	0.95	0.18	0.40	0.60
LP60-090F	0.90	1.80	4.50	7.2	60	40	1.00	0.14	0.31	0.47
LP60-110F	1.10	2.20	5.50	8.2	60	40	1.51	0.14	0.25	0.38
LP60-135F	1.35	2.70	6.75	9.6	60	40	1.71	0.12	0.19	0.30
LP60-160F	1.60	3.20	8.00	11.4	60	40	1.98	0.09	0.14	0.22
LP60-185F	1.85	3.70	9.25	12.6	60	40	2.10	0.08	0.12	0.19
LP60-250F	2.50	5.00	12.50	15.6	60	40	2.50	0.05	0.08	0.13
LP60-300F	3.00	6.00	15.00	19.8	60	40	2.80	0.04	0.06	0.10
LP60-375F	3.75	7.50	18.75	24.0	60	40	3.20	0.03	0.05	0.08

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

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

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

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

Max.Time-to-trip =Maximum time to trip(s) 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°C prior to tripping.

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

R_{1max}= Maximum resistance of device when measured one hour post trip at 25°C.

Thermal Derating Chart-I_H(A)

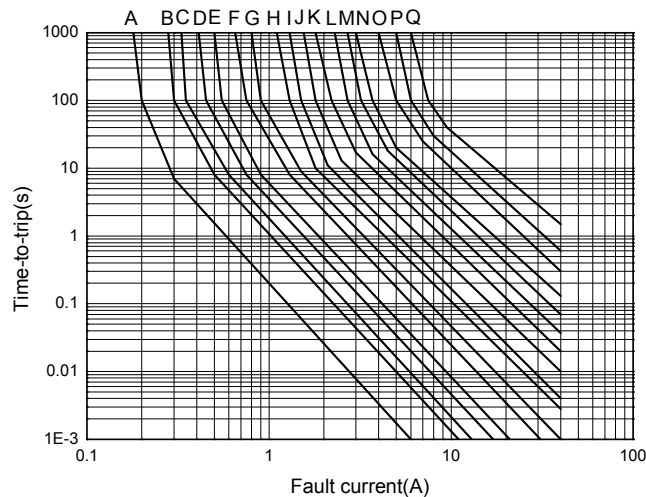
Part number	Maximum ambient operating temperatures(°C)									
	-40	-20	0	25	40	50	60	70	85	
LP60-005F	0.077	0.069	0.061	0.050	0.044	0.040	0.036	0.032	0.025	
LP60-010F	0.18	0.15	0.13	0.10	0.08	0.07	0.06	0.05	0.03	
LP60-017F	0.28	0.24	0.20	0.17	0.14	0.12	0.10	0.09	0.06	
LP60-020F	0.34	0.29	0.25	0.20	0.16	0.14	0.13	0.10	0.07	
LP60-025F	0.42	0.36	0.31	0.25	0.20	0.18	0.16	0.12	0.09	
LP60-030F	0.52	0.44	0.38	0.30	0.24	0.22	0.18	0.14	0.10	
LP60-040F	0.66	0.57	0.50	0.40	0.32	0.29	0.24	0.20	0.14	
LP60-050F	0.83	0.74	0.63	0.50	0.41	0.36	0.30	0.25	0.18	
LP60-065F	1.10	0.95	0.82	0.65	0.53	0.47	0.40	0.33	0.24	
LP60-075F	1.26	1.11	0.95	0.75	0.61	0.54	0.45	0.39	0.28	
LP60-090F	1.52	1.30	1.15	0.90	0.73	0.65	0.55	0.47	0.33	
LP60-110F	1.82	1.60	1.35	1.10	0.89	0.79	0.65	0.55	0.40	
LP60-135F	2.20	1.91	1.65	1.35	1.09	0.96	0.80	0.68	0.50	
LP60-160F	2.60	2.30	1.95	1.60	1.30	1.13	1.00	0.80	0.60	
LP60-185F	3.00	2.63	2.30	1.85	1.50	1.33	1.12	0.92	0.67	
LP60-250F	4.05	3.58	3.02	2.50	2.02	1.80	1.55	1.30	0.90	
LP60-300F	4.82	4.16	3.62	3.00	2.43	2.16	1.85	1.50	1.09	
LP60-375F	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°C	$R_{min} \leq R \leq R_{max}$
Time to Trip	Specified current, V_{max} , 25°C	$T \leq$ 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} , 2hours	No arcing or burning

Typical Time-to-Trip Charts at 25°C

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



Package Information

Bulk:

LP60-005F~LP60-065F.....1000pcs per bag
 LP60-075F~LP60-135F.....500pcs per bag
 LP60-160F~LP60-185F.....1000pcs per bag
 LP60-200F~LP60-300F.....500pcs per bag
 LP60-375F.....250pcs per bag

Tape & Reel:

LP60-005F~LP60-090F.....3000pcs per reel