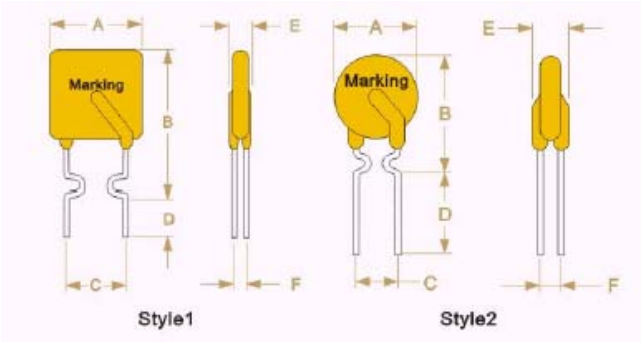
Features

- ☐ Radial leaded devices
- ☐ Cured, flame retardant epoxy polymer insulating material meets UL94 V-0 requirements
- ☐ Available in lead-free version
- ☐ Agency Recognition: UL、CSA、TUV

LP06 *series* ***R-line devices***

Product Dimensions

Part number	A	B	C	D	E	F	Lead	
	Max.	Max.	Typ.	Min.	Max.	Typ.	Style	Size(ϕ)
LP06-075F	6.4	11.4	5.1	7.6	3.0	0.8	2	0.6
LP06-090F	6.6	14.0	5.1	7.6	3.0	0.9	1	0.6
LP06-110F	7.9	14.2	5.1	7.6	3.0	0.9	1	0.6
LP06-120F	7.4	12.6	5.1	7.6	3.0	0.8	2	0.6
LP06-135F	8.9	14.5	5.1	7.6	3.0	0.9	1	0.6
LP06-160F	8.9	17.9	5.1	7.6	3.0	0.9	1	0.6
LP06-185F	10.7	16.7	5.1	7.6	3.0	0.9	1	0.6
LP06-250F	11.5	20.4	5.1	7.6	3.0	0.9	1	0.6



Marking system

LP □ — Voltage rating
Product family
□ □ □
Current rating

* Lead materials: Tin-plate metal wire.

* Lead-free devices are available,
the right logo is lead-free mark of wayon.

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)
LP06-075F	0.75	1.30	0.4	6	40	0.30	0.14	0.23
LP06-090F	0.90	1.80	1.2	6	40	0.60	0.10	0.18
LP06-110F	1.10	2.20	2.3	6	40	0.70	0.08	0.14
LP06-120F	1.20	2.00	3.5	6	40	0.60	0.08	0.14
LP06-135F	1.35	2.70	4.5	6	40	0.81	0.06	0.12
LP06-160F	1.60	3.20	9.0	6	40	0.90	0.05	0.11
LP06-185F	1.85	3.70	10.0	6	40	1.00	0.05	0.09
LP06-250F	2.50	5.00	10.0	6	40	1.21	0.03	0.06

Shanghai Changyuan Wayon Circuit protection Co., Ltd. Tel: 86-21- 50310888 50968308 Fax: 86-21-50757680
No. 1001, Shiwan Qi Road, Pudong Area, Shanghai E-mail: market@way-on.com Http://www.way-on.com

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}=Maximum 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 5 times hold current (i.e. 5*I_H).

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-$I_{H(A)}$

Part number	Maximum ambient operating temperatures(℃)								
	-40	-20	0	25	40	50	60	70	85
LP06-075F	1.05	0.95	0.85	0.75	0.65	0.60	0.55	0.50	0.43
LP06-090F	1.40	1.25	1.10	0.90	0.75	0.69	0.65	0.60	0.50
LP06-110F	1.75	1.52	1.33	1.10	0.99	0.90	0.80	0.73	0.63
LP06-120F	1.69	1.52	1.36	1.20	1.04	0.96	0.88	0.80	0.68
LP06-135F	2.15	1.94	1.70	1.35	1.20	1.14	1.00	0.90	0.81
LP06-160F	2.49	2.21	1.94	1.60	1.42	1.31	1.19	1.03	0.88
LP06-185F	2.87	2.59	2.28	1.85	1.63	1.52	1.33	1.21	1.05
LP06-250F	3.82	3.44	3.03	2.50	2.17	2.00	1.81	1.59	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=LP06-075F

B=LP06-090F

C=LP06-110F

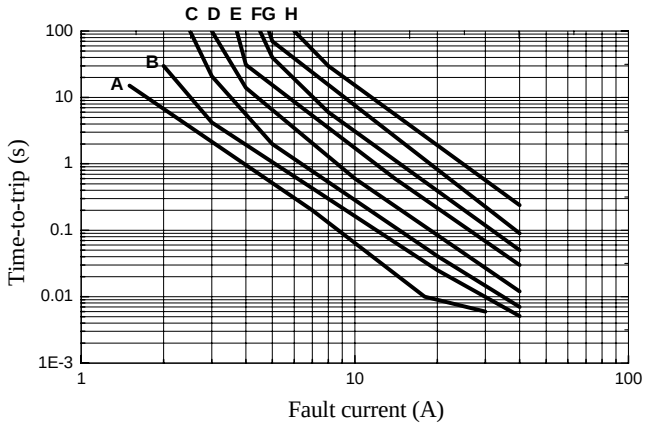
D=LP06-120F

E=LP06-135F

F=LP06-160F

G=LP06-185F

H=LP06-250F



Package Information

Bulk:

LP06-075F~LP06-250F……1000pcs per bag

Tape & Reel:

LP06-075F~LP06-250F……3000pcs per reel

Shanghai Changyuan Wayon Circuit protection Co., Ltd. Tel: 86-21- 50310888 50968308 Fax: 86-21-50757680
No. 1001, Shiwan Qi Road, Pudong Area, Shanghai E-mail: market@way-on.com Http://www.way-on.com

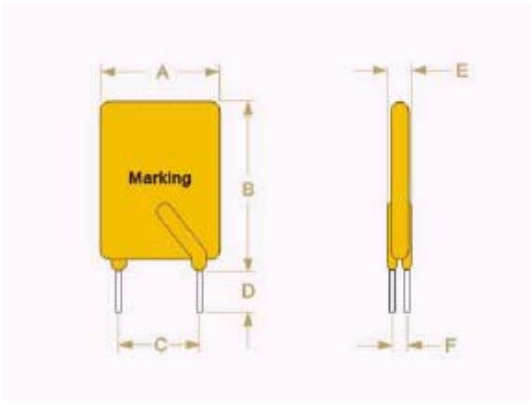
Features

- ☐ Radial leaded devices
- ☐ Faster tripping, typical application in micro-motors for automobiles
- ☐ Protecting against overcurrent and overtemperature faults
- ☐ Available in lead-free version
- ☐ Agency Recognition: UL、CSA、TUV

LP16 *series* **R-line devices**

Product Dimensions

Part number	A	B	C	D	E	F	Lead
	Max.	Max.	Typ.	Min.	Max.	Typ.	Size(Φ)
LP16-300F	8.5	12.5	5.1	7.6	3.0	1.2	0.8
LP16-400F	9.6	13.8	5.1	7.6	3.0	1.2	0.8
LP16-500F	11.1	13.9	5.1	7.6	3.0	1.2	0.8
LP16-600F	11.4	16.8	5.1	7.6	3.0	1.2	0.8
LP16-700F	12.5	19.7	5.1	7.6	3.0	1.2	0.8
LP16-800F	13.4	21.2	5.1	7.6	3.0	1.2	0.8
LP16-900F	15.5	21.4	5.1	7.6	3.0	1.2	0.8
LP16-1000F	17.2	24.8	5.1	7.6	3.0	1.2	0.8
LP16-1100F	18.2	26.7	5.1	7.6	3.0	1.2	0.8
LP16-1200F	18.2	28.5	10.2	7.6	3.4	1.4	0.8
LP16-1400F	28.6	28.7	10.2	7.6	3.4	1.4	0.8
LP16-075F	6.4	11.4	5.1	7.6	3.0	0.9	0.5
LP16-090F	6.6	14.0	5.1	7.6	3.0	0.9	0.5
LP16-110F	7.9	14.2	5.1	7.6	3.0	0.9	0.5
LP16-120F	7.4	12.6	5.1	7.6	3.0	0.9	0.5
LP16-135F	8.9	14.5	5.1	7.6	3.0	0.9	0.5
LP16-160F	8.9	17.9	5.1	7.6	3.0	0.9	0.5
LP16-185F	10.7	16.7	5.1	7.6	3.0	0.9	0.5
LP16-250F	11.5	20.4	5.1	7.6	3.0	0.9	0.5



Marking system

LP □ — Voltage rating

Product family

□ □ □

Current rating

* Lead materials: Tin-plate metal wire.

* Lead-free devices are available,

the right logo is lead-free mark of wayon.

Electrical Characteristics

Part number	I_H	I_T	T_{trip}	V_{max}	I_{max}	Pd_{typ}	R_{min}	R_{1max}
	(A)	(A)	(S)	(V)	(A)	(W)	(Ω)	(Ω)
LP16-300F	3.0	5.1	2.0	16	100	2.3	0.034	0.105
LP16-400F	4.0	6.8	3.5	16	100	2.4	0.020	0.063
LP16-500F	5.0	8.5	3.6	16	100	2.6	0.014	0.044

Shanghai Changyuan Wayon Circuit protection Co., Ltd. Tel: 86-21- 50310888 50968308 Fax: 86-21-50757680
No. 1001, Shiwan Qi Road, Pudong Area, Shanghai E-mail: market@way-on.com Http://www.way-on.com

LP16-600F	6.0	10.2	5.8	16	100	2.8	0.009	0.030
LP16-700F	7.0	11.9	8.0	16	100	3.0	0.006	0.021
LP16-800F	8.0	13.6	9.0	16	100	3.0	0.005	0.018
LP16-900F	9.0	15.3	12.0	16	100	3.3	0.004	0.015
LP16-1000F	10.0	17.0	12.5	16	100	3.3	0.003	0.012
LP16-1100F	11.0	18.7	13.5	16	100	3.7	0.003	0.010
LP16-1200F	12.0	20.4	16.0	16	100	4.2	0.002	0.009
LP16-1400F	14.0	23.8	20.0	16	100	4.6	0.0014	0.0080
LP16-075F	0.75	1.30	0.4	16	40	0.30	0.14	0.23
LP16-090F	0.90	1.80	1.2	16	40	0.60	0.10	0.18
LP16-110F	1.10	2.20	2.3	16	40	0.70	0.08	0.14
LP16-120F	1.20	2.00	3.5	16	40	0.60	0.08	0.14
LP16-135F	1.35	2.70	4.5	16	40	0.81	0.06	0.12
LP16-160F	1.60	3.20	9.0	16	40	0.90	0.05	0.11
LP16-185F	1.85	3.70	10.0	16	40	1.00	0.05	0.09
LP16-250F	2.50	5.00	10.0	16	40	1.21	0.03	0.06

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.

T_{trip}=Maximum time to trip at 5 times hold current (i.e. 5*I_H).

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.

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_{1max}=Maximum resistance of device when measured one hour post trip at 25℃.

Thermal Derating Chart-$I_{H(A)}$

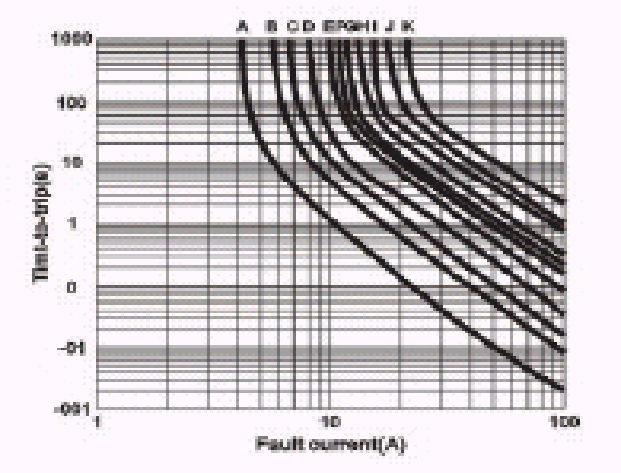
Part number	Maximum ambient operating temperatures(℃)								
	-40	-20	0	25	40	50	60	70	85
LP16-300F	4.4	4.0	3.6	3.0	2.6	2.4	2.1	1.9	1.4
LP16-400F	5.9	5.3	4.8	4.0	3.5	3.2	2.8	2.5	1.9
LP16-500F	7.3	6.6	6.0	5.0	4.4	4.0	3.6	3.1	2.4
LP16-600F	8.8	8.0	7.2	6.0	5.2	4.8	4.2	3.8	2.8
LP16-700F	10.3	9.3	8.4	7.0	6.2	5.6	5.0	4.4	3.3
LP16-800F	11.7	10.7	9.6	8.0	6.9	6.4	5.6	5.1	3.7
LP16-900F	13.2	11.9	10.7	9.0	7.9	7.2	6.4	5.6	4.2
LP16-1000F	14.7	13.3	12.0	10.0	8.7	8.0	7.0	6.3	4.7
LP16-1100F	16.1	14.6	13.1	11.0	9.7	8.8	7.8	6.9	5.2
LP16-1200F	17.6	16.0	14.4	12.0	10.4	9.6	8.4	7.6	5.6
LP16-1400F	20.5	18.7	16.8	14.0	12.1	11.2	9.8	8.9	6.5
LP16-075F	1.05	0.95	0.85	0.75	0.65	0.60	0.55	0.50	0.43
LP16-090F	1.40	1.25	1.10	0.90	0.75	0.69	0.65	0.60	0.50
LP16-110F	1.75	1.52	1.33	1.10	0.99	0.90	0.80	0.73	0.63
LP16-120F	1.69	1.52	1.36	1.20	1.04	0.96	0.88	0.80	0.68
LP16-135F	2.15	2.21	1.94	1.60	1.42	1.31	1.19	1.03	0.88
LP16-160F	2.49	2.21	1.94	1.60	1.42	1.31	1.19	1.03	0.88
LP16-185F	2.87	2.59	2.28	1.85	1.63	1.52	1.33	1.21	1.05
LP16-250F	3.82	3.44	3.03	2.50	2.17	2.00	1.81	1.59	1.39

Test Procedures And Requirements

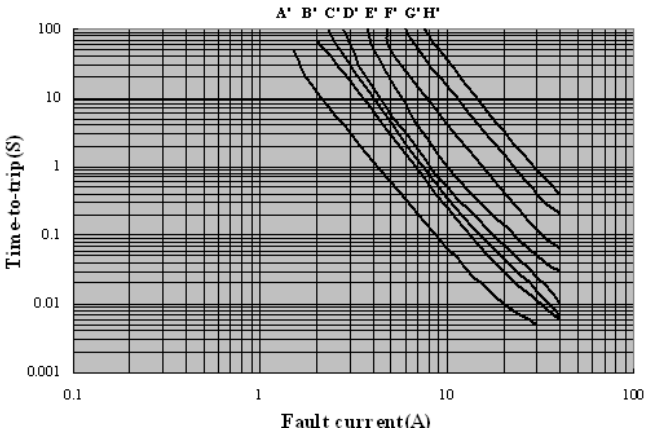
Test	Test Conditions	Accept/Reject Criteria
Resistance	In still air @ 25℃	$R_{min} \leqslant R \leqslant R_{max}$
Time to Trip	Specified current, V_{max}, 25℃	T≤maximum Time to Trip
Hold Current	30min, at I_H	No trip
Trip Cycle Life	V_{max}, I_{max}, 100cycles	No arcing or burning
Trip Endurance	V_{max},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

Typical Time–to-Trip Charts at 25℃

A=LP16-300F
B=LP16-400F
C=LP16-500F
D=LP16-600F
E=LP16-700F
F=LP16-800F
G=LP16-900F
H=LP16-1000F
I=LP16-1100F
J=LP16-1200F
K=LP16-1400F



A'=LP16-075F
B'=LP16-090F
C'=LP16-110F
D'=LP16-120F
E'=LP16-135F
F'=LP16-160F
G'=LP16-185F
H'=LP16-250F



Package Information

Bulk:
LP16-075F~LP16-900F……1000pcs per bag
LP16-500F~LP16-600F……500pcs per bag
LP16-1000F~LP16-1200F……500pcs per bag
LP16-1400F……250pcs per bag

Shanghai Changyuan Wayon Circuit protection Co., Ltd. Tel: 86-21- 50310888 50968308 Fax: 86-21-50757680
No. 1001, Shiwan Qi Road, Pudong Area, Shanghai E-mail: market@way-on.com Http://www.way-on.com

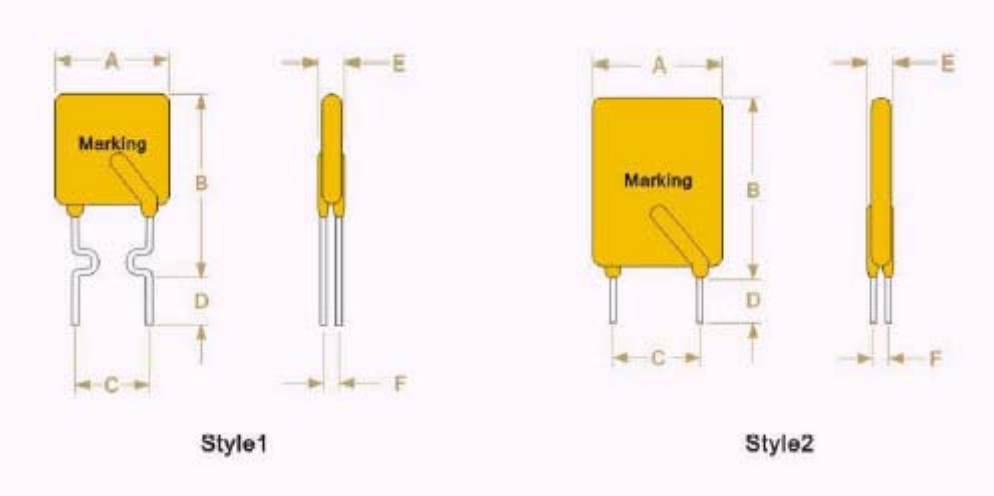
Features

- ☐ Radial leaded devices
- ☐ Cured, flame retardant epoxy polymer insulating material meets UL94 V-0 requirements
- ☐ Available in lead-free version
- ☐ Agency Recognition: UL、CSA、TUV

LP30 *series* ***R-line devices***

Product Dimensions

Part number	A	B	C	D	E	F	Lead	
	Max.	Max.	Typ.	Min.	Max.	Typ.	Style	Size(ϕ)
LP30-090F	6.0	13.8	5.1	7.6	3.0	0.9	1	0.6
LP30-110F	7.8	14.0	5.1	7.6	3.0	0.9	1	0.6
LP30-135F	8.9	14.0	5.1	7.6	3.0	0.9	1	0.6
LP30-160SF	9.7	17.0	5.1	7.6	3.0	0.9	1	0.6
LP30-185F	10.7	17.0	5.1	7.6	3.0	0.9	1	0.6
LP30-250F	11.7	19.0	5.1	7.6	3.0	0.9	1	0.6
LP30-300F	11.7	21.0	5.1	7.6	3.0	1.2	2	0.8
LP30-400F	14.2	23.0	5.1	7.6	3.0	1.2	2	0.8
LP30-500F	14.4	28.0	10.2	7.6	3.0	1.2	2	0.8
LP30-600F	16.7	28.0	10.2	7.6	3.0	1.2	2	0.8
LP30-700F	19.4	29.6	10.2	7.6	3.0	1.2	2	0.8
LP30-800F	21.6	31.9	10.2	7.6	3.0	1.2	2	0.8
LP30-900F	24.5	36.4	10.2	7.6	3.0	1.2	2	0.8



Marking system

LP □ — Voltage rating

Product family

□ □ □

Current rating

* Lead materials: Tin-plate metal wire.
* Lead-free devices are available,
  the right logo is lead-free mark of wayon.

Shanghai Changyuan Wayon Circuit protection Co., Ltd.
No. 1001, Shiwan Qi Road, Pudong Area, Shanghai
Tel: 86-21- 50310888 50968308 Fax: 86-21-50757680
E-mail: market@way-on.com Http://www.way-on.com

Electrical Characteristics

Part number	I_H	I_T	T_{trip}		V_{max}	I_{max}	Pd_{typ}	R_{min}	R_{max}
	(A)	(A)	Current (A)	Time (S)	(V)	(A)	(W)	(Ω)	(Ω)
LP30-090F	0.90	1.80	4.50	7.1	30	40	0.91	0.07	0.12
LP30-110F	1.10	2.20	5.50	6.6	30	40	1.00	0.05	0.10
LP30-135F	1.35	2.70	6.75	7.3	30	40	1.11	0.04	0.08
LP30-160SF	1.60	3.20	8.00	8.0	30	40	1.20	0.03	0.07
LP30-185F	1.85	3.70	9.25	8.7	30	40	1.27	0.03	0.06
LP30-250F	2.50	5.00	12.50	10.3	30	40	1.34	0.02	0.04
LP30-300F	3.00	6.00	15.00	10.8	30	40	2.00	0.02	0.05
LP30-400F	4.00	8.00	20.00	12.7	30	40	2.50	0.01	0.03
LP30-500F	5.00	10.00	25.00	14.5	30	40	3.00	0.01	0.03
LP30-600F	6.00	12.00	30.00	16.0	30	40	3.50	0.005	0.02
LP30-700F	7.00	14.00	35.00	17.5	30	40	3.80	0.005	0.02
LP30-800F	8.00	16.00	40.00	18.8	30	40	4.00	0.005	0.02
LP30-900F	9.00	18.00	40.00	20.0*	30	40	4.20	0.005	0.01

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.

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

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.

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-$I_{H(A)}$

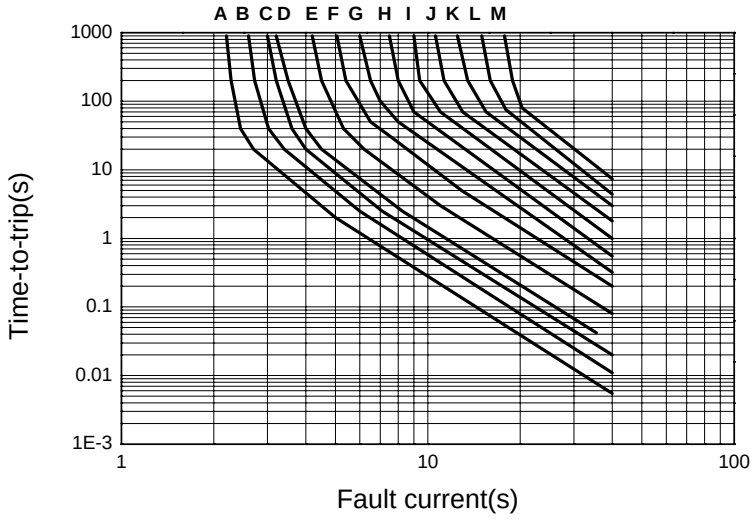
Part number	Maximum ambient operating temperatures(℃)								
	-40	-20	0	25	40	50	60	70	85
LP30-090F	1.40	1.25	1.10	0.90	0.75	0.69	0.65	0.60	0.50
LP30-110F	1.75	1.52	1.33	1.10	0.99	0.90	0.80	0.73	0.63
LP30-135F	2.15	1.94	1.70	1.35	1.20	1.14	1.00	0.90	0.81
LP30-160SF	2.49	2.21	1.94	1.60	1.42	1.31	1.19	1.03	0.88
LP30-185F	2.87	2.59	2.28	1.85	1.63	1.52	1.33	1.21	1.05
LP30-250F	3.82	3.44	3.03	2.50	2.17	2.00	1.81	1.59	1.39
LP30-300F	4.55	4.10	3.60	3.00	2.65	2.51	2.24	2.01	1.74
LP30-400F	6.00	5.40	4.74	4.00	3.47	3.28	2.82	2.63	2.26
LP30-500F	7.44	6.68	5.80	5.00	4.30	4.03	3.58	3.22	2.77
LP30-600F	8.90	7.99	7.08	6.00	5.13	4.82	4.27	3.84	3.30
LP30-700F	10.35	9.30	8.21	7.00	5.95	5.58	4.96	4.46	3.84
LP30-800F	11.60	10.60	9.35	8.00	6.79	6.36	5.64	5.07	4.36
LP30-900F	13.25	11.90	10.49	9.00	7.53	7.12	6.32	5.69	4.88

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=LP30-090F
B=LP30-110F
C=LP30-135F
D=LP30-160SF
E=LP30-185F
F=LP30-250F
G=LP30-300F
H=LP30-400F
I=LP30-500F
J=LP30-600F
K=LP30-700F
L=LP30-800F
M=LP30-900F



Package Information

Bulk:
LP30-090F~LP30-185F……1000pcs per bag
LP30-250F~LP30-800F……500pcs per bag
LP30-900F……200pcs per bag

Tape & Reel:
LP30-090F~LP30-160SF……3000pcs per reel
LP30-185F~LP30-400F…… ……1500pcs 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.

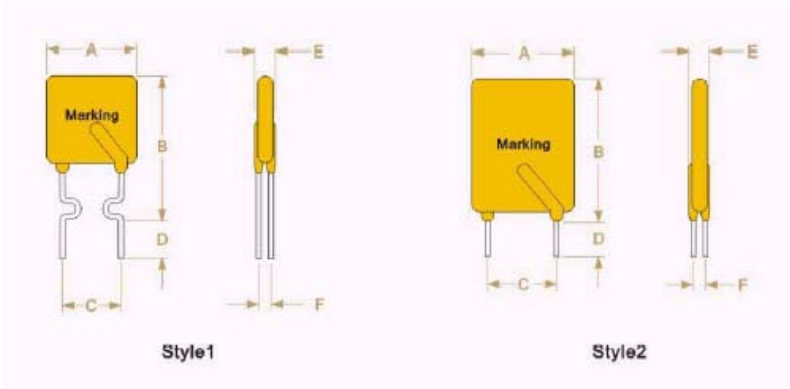
Features

- ☐ Radial leaded devices
- ☐ Rated voltage up to 33V to meet broader applications
- ☐ Cured, flame retardant epoxy polymer insulating material meets UL94 V-0 requirements
- ☐ Available in lead-free version
- ☐ Agency Recognition: UL、CSA、TUV

LP33 *series* ***R-line devices***

Product Dimensions

Part number	A	B	C	D	E	F	Lead	
	Max.	Max.	Typ.	Min.	Max.	Typ.	Style	Size(Φ)
LP33-090F	6.0	13.8	5.1	7.6	3.0	0.9	1	0.6
LP33-110F	7.8	14.0	5.1	7.6	3.0	0.9	1	0.6
LP33-120F	7.4	12.2	5.1	7.6	3.0	0.9	1	0.6
LP33-135F	7.4	14.2	5.1	7.6	3.0	0.9	1	0.6
LP33-160F	9.7	17.0	5.1	7.6	3.0	0.9	1	0.6
LP33-185F	10.7	17.0	5.1	7.6	3.0	0.9	1	0.6
LP33-190F	8.9	13.5	5.1	7.6	3.0	0.9	1	0.6
LP33-250F	11.7	19.0	5.1	7.6	3.0	0.9	1	0.6
LP33-300F	11.7	21.0	5.1	7.6	3.0	1.2	2	0.8
LP33-400F	14.2	23.0	5.1	7.6	3.0	1.2	2	0.8
LP33-500F	14.4	28.0	10.2	7.6	3.0	1.2	2	0.8
LP33-600F	16.7	28.0	10.2	7.6	3.0	1.2	2	0.8
LP33-700F	19.4	29.6	10.2	7.6	3.0	1.2	2	0.8
LP33-800F	21.6	31.9	10.2	7.6	3.0	1.2	2	0.8
LP33-900F	24.5	36.4	10.2	7.6	3.0	1.2	2	0.8



Marking system

LP ☐ — Voltage rating

Product family

☐ ☐ ☐

Current rating

* Lead materials: Tin-plate metal wire.
* Lead-free devices are available,
the right logo is lead-free mark of wayon.

Shanghai Changyuan Wayon Circuit protection Co., Ltd.
No. 1001, Shiwan Qi Road, Pudong Area, Shanghai
Tel: 86-21- 50310888 50968308 Fax: 86-21-50757680
E-mail: market@way-on.com Http://www.way-on.com

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)
LP33-090F	0.90	1.80	7.1	33	40	0.91	0.07	0.12
LP33-110F	1.10	2.20	6.6	33	40	1.00	0.05	0.10
LP33-120F	1.20	2.30	3.5	33	40	0.78	0.074	0.12
LP33-135F	1.35	2.50	4.5	33	40	0.84	0.059	0.10
LP33-160F	1.60	3.20	8.0	33	40	1.20	0.03	0.07
LP33-185F	1.85	3.70	8.7	33	40	1.27	0.03	0.06
LP33-190F	1.90	3.00	3.5	33	40	0.90	0.045	0.063
LP33-250F	2.50	5.00	10.3	33	40	1.34	0.02	0.04
LP33-300F	3.00	6.00	10.8	33	40	2.00	0.02	0.05
LP33-400F	4.00	8.00	12.7	33	40	2.50	0.01	0.03
LP33-500F	5.00	10.00	14.5	33	40	3.00	0.01	0.03
LP33-600F	6.00	12.00	16.0	33	40	3.50	0.005	0.02
LP33-700F	7.00	14.00	17.5	33	40	3.80	0.005	0.02
LP33-800F	8.00	16.00	18.8	33	40	4.00	0.005	0.02
LP33-900F	9.00	18.00	20.0*	33	40	4.20	0.005	0.01

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}=Maximum 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(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℃ prior to tripping.

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

Thermal Derating Chart-$I_{H(A)}$

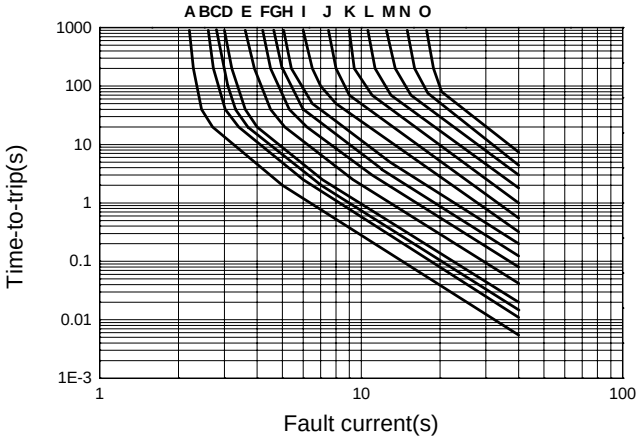
Part number	Maximum ambient operating temperatures(℃)								
	-40	-20	0	25	40	50	60	70	85
LP33-090F	1.40	1.25	1.10	0.90	0.75	0.69	0.65	0.60	0.50
LP33-110F	1.75	1.52	1.33	1.10	0.99	0.90	0.80	0.73	0.63
LP33-120F	1.74	1.56	1.38	1.20	1.00	0.92	0.82	0.73	0.60
LP33-135F	1.96	1.76	1.55	1.35	1.12	1.04	0.92	0.82	0.68
LP33-160F	2.49	2.21	1.94	1.60	1.42	1.31	1.19	1.03	0.88
LP33-185F	2.87	2.59	2.28	1.85	1.63	1.52	1.33	1.21	1.05
LP33-190F	2.76	2.47	1.55	1.90	1.58	1.50	1.29	1.16	0.95
LP33-250F	3.82	3.44	3.03	2.50	2.17	2.00	1.81	1.59	1.39
LP33-300F	4.55	4.10	3.60	3.00	2.65	2.51	2.24	2.01	1.74
LP33-400F	6.00	5.40	4.74	4.00	3.47	3.28	2.82	2.63	2.26
LP33-500F	7.44	6.68	5.80	5.00	4.30	4.03	3.58	3.22	2.77
LP33-600F	8.90	7.99	7.08	6.00	5.13	4.82	4.27	3.84	3.30
LP33-700F	10.35	9.30	8.21	7.00	5.95	5.58	4.96	4.46	3.84
LP33-800F	11.60	10.60	9.35	8.00	6.79	6.36	5.64	5.07	4.36
LP33-900F	13.25	11.90	10.49	9.00	7.53	7.12	6.32	5.69	4.88

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=LP33-090F
B=LP33-110F
C=LP33-120F
D=LP33-135F
E=LP33-160F
F=LP33-185F
G=LP33-190F
H=LP33-250F
I =LP33-300F
J=LP33-400F
K=LP33-500F
L=LP33-600F
M=LP33-700F
N=LP33-800F
O=LP33-900F



Package Information

Bulk:
LP33-090F~LP33-185F……1000pcs per bag
LP33-250F~LP33-375F…….500pcs per bag

Tape & Reel:
LP33-090~LP33-160…….3000pcs per reel
LP33-185~LP33-375…….1500pcs per reel

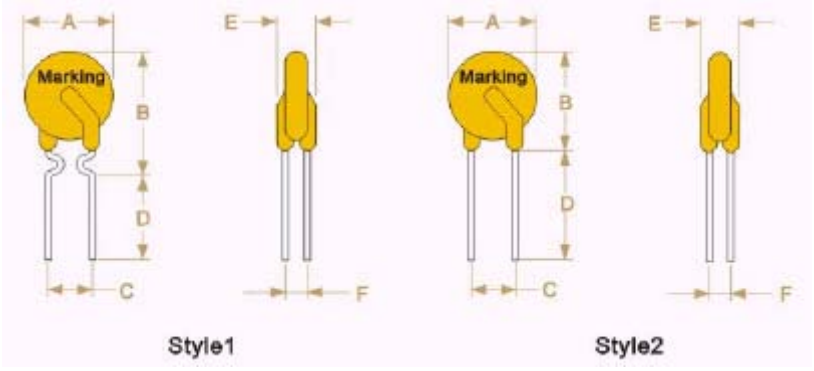
Features

- ☐ Radial leaded devices
- ☐ Cured, flame retardant epoxy polymer insulating material meets UL94 V-0 requirements
- ☐ Available in lead-free version
- ☐ Agency Recognition: UL、CSA、TUV

LP60 *series* ***R-line devices***

Product Dimensions

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



Marking system

LP ☐ — Voltage rating

Product family

☐ ☐ ☐

Current rating

* Lead materials: Tin-plate metal wire.
* Lead-free devices are available,
  the right logo is lead-free mark of wayon.

Shanghai Changyuan Wayon Circuit protection Co., Ltd.
No. 1001, Shiwan Qi Road, Pudong Area, Shanghai
Tel: 86-21- 50310888 50968308 Fax: 86-21-50757680
E-mail: market@way-on.com Http://www.way-on.com

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)
LP60-005F	0.05	0.10	5.0	60	40	0.26	7.30	11.10
LP60-010F	0.10	0.20	8.0	60	40	0.51	2.50	4.50
LP60-017F	0.17	0.34	5.0	60	40	0.60	2.00	3.20
LP60-020F	0.20	0.40	3.6	60	40	0.52	1.50	2.84
LP60-025F	0.25	0.50	3.2	60	40	0.52	1.00	1.95
LP60-030F	0.30	0.60	3.0	60	40	0.59	0.76	1.36
LP60-040F	0.40	0.80	3.8	60	40	0.66	0.52	0.86
LP60-050F	0.50	1.00	4.0	60	40	0.80	0.41	0.77
LP60-065F	0.65	1.30	5.3	60	40	0.90	0.27	0.48
LP60-075F	0.75	1.50	6.3	60	40	0.95	0.18	0.40
LP60-090F	0.90	1.80	7.2	60	40	1.00	0.14	0.31
LP60-110F	1.10	2.20	8.2	60	40	1.51	0.14	0.25
LP60-135F	1.35	2.70	9.6	60	40	1.71	0.12	0.19
LP60-160F	1.60	3.20	11.4	60	40	1.98	0.09	0.14
LP60-185F	1.85	3.70	12.6	60	40	2.10	0.08	0.12
LP60-250F	2.50	5.00	15.6	60	40	2.50	0.05	0.08
LP60-300F	3.00	6.00	19.8	60	40	2.80	0.04	0.06
LP60-375F	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}=Maximum 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(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℃ prior to tripping.

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

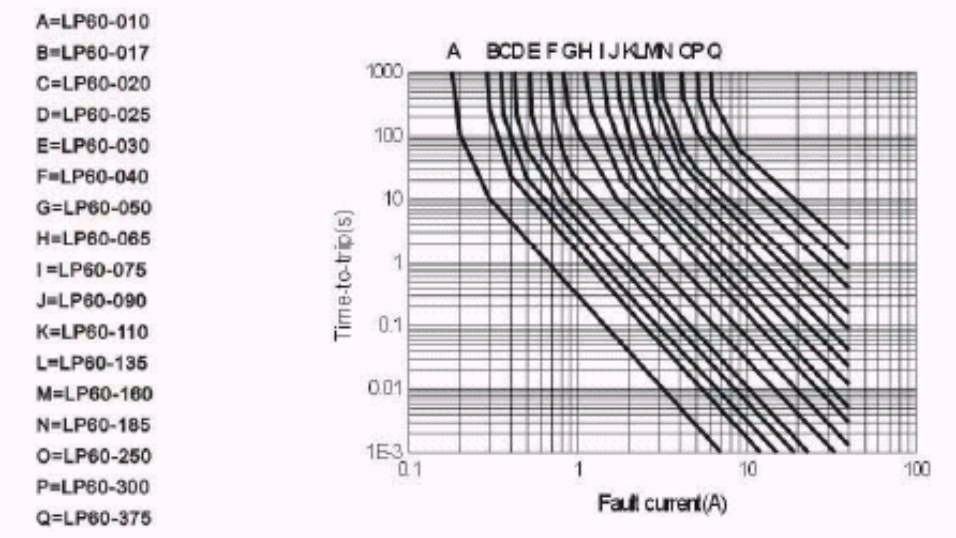
Thermal Derating Chart-$I_{H(A)}$

Part number	Maximum ambient operating temperatures(℃)								
	-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℃	$R_{min} \leqslant R \leqslant R_{max}$
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℃



Package Information

Bulk:

LP60-005F~LP60-065F……1000pcs per bag

LP60-075F~LP60-135F……500pcs per bag

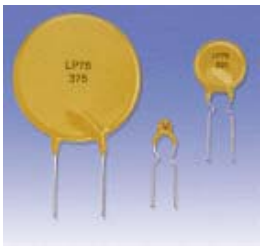
LP60-160F~LP60-375F……1000pcs per bag

Tape & Reel:

LP60-005F~LP60-090F……3000pcs per reel

LP60-110F~LP60-160F……1500pcs per reel

LP60-185F~LP60-375F……1000pcs per reel



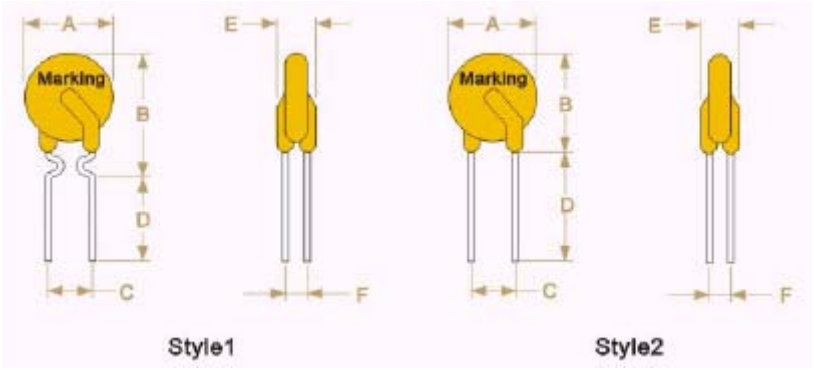
Features

- ☐ Radial leaded devices, higher rated voltage up to 75V
- ☐ Cured, flame retardant epoxy polymer insulating material meets UL94 V-0 requirements
- ☐ Available in lead-free version
- ☐ Agency Recognition: UL、CSA、TUV

LP75 *series* ***R-line devices***

Product Dimensions

Part number	A	B	C	D	E	F	Lead	
	Max.	Max.	Typ.	Min.	Max.	Typ.	Style	Size(ϕ)
LP75-020SF	5.9	11.2	5.1	7.6	3.1	1.1	1	0.5
LP75-025SF	6.1	11.4	5.1	7.6	3.1	1.1	1	0.5
LP75-030SF	7.6	13.4	5.1	7.6	3.1	1.1	1	0.5
LP75-040SF	7.7	13.6	5.1	7.6	3.1	1.1	1	0.5
LP75-050F	7.9	13.7	5.1	7.6	3.1	1.1	1	0.6
LP75-065F	9.7	14.5	5.1	7.6	3.1	1.1	1	0.6
LP75-075F	10.7	15.5	5.1	7.6	3.1	1.1	1	0.6
LP75-090F	11.7	16.5	5.1	7.6	3.1	1.1	1	0.6
LP75-110F	13.0	16.7	5.1	7.6	3.1	1.4	2	0.8
LP75-135F	15.7	17.6	5.1	7.6	3.1	1.4	2	0.8
LP75-160F	16.7	19.7	5.1	7.6	3.1	1.4	2	0.8
LP75-185F	17.8	22.9	5.1	7.6	3.1	1.4	2	0.8
LP75-250F	21.3	23.5	10.2	7.6	3.1	1.4	2	0.8
LP75-300F	24.9	27.4	10.2	7.6	3.1	1.4	2	0.8
LP75-375F	28.5	32.5	10.2	7.6	3.1	1.4	2	0.8



Marking system

LP ☐ — Voltage rating

Product family

☐ ☐ ☐

Current rating

* Lead materials: Tin-plate metal wire.
* Lead-free devices are available,
  the right logo is lead-free mark of wayon.

Shanghai Changyuan Wayon Circuit protection Co., Ltd.
No. 1001, Shiwan Qi Road, Pudong Area, Shanghai
Tel: 86-21- 50310888 50968308 Fax: 86-21-50757680
E-mail: market@way-on.com Http://www.way-on.com

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)
LP75-020SF	0.20	0.40	3.6	75	40	0.52	1.50	2.84
LP75-025SF	0.25	0.50	3.2	75	40	0.52	1.00	1.95
LP75-030SF	0.30	0.60	3.0	75	40	0.59	0.76	1.36
LP75-040SF	0.40	0.80	3.8	75	40	0.66	0.52	0.86
LP75-050F	0.50	1.00	4.0	75	40	0.80	0.41	0.77
LP75-065F	0.65	1.30	5.3	75	40	0.90	0.27	0.48
LP75-075F	0.75	1.50	6.3	75	40	0.95	0.18	0.40
LP75-090F	0.90	1.80	7.2	75	40	1.00	0.14	0.31
LP75-110F	1.10	2.20	8.2	75	40	1.51	0.14	0.25
LP75-135F	1.35	2.70	9.6	75	40	1.71	0.12	0.19
LP75-160F	1.60	3.20	11.4	75	40	1.98	0.09	0.14
LP75-185F	1.85	3.70	12.6	75	40	2.10	0.08	0.12
LP75-250F	2.50	5.00	15.6	75	40	2.50	0.05	0.08
LP75-300F	3.00	6.00	19.8	75	40	2.80	0.04	0.06
LP75-375F	3.75	7.50	24.0	75	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}=Maximum 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(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℃ prior to tripping.

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

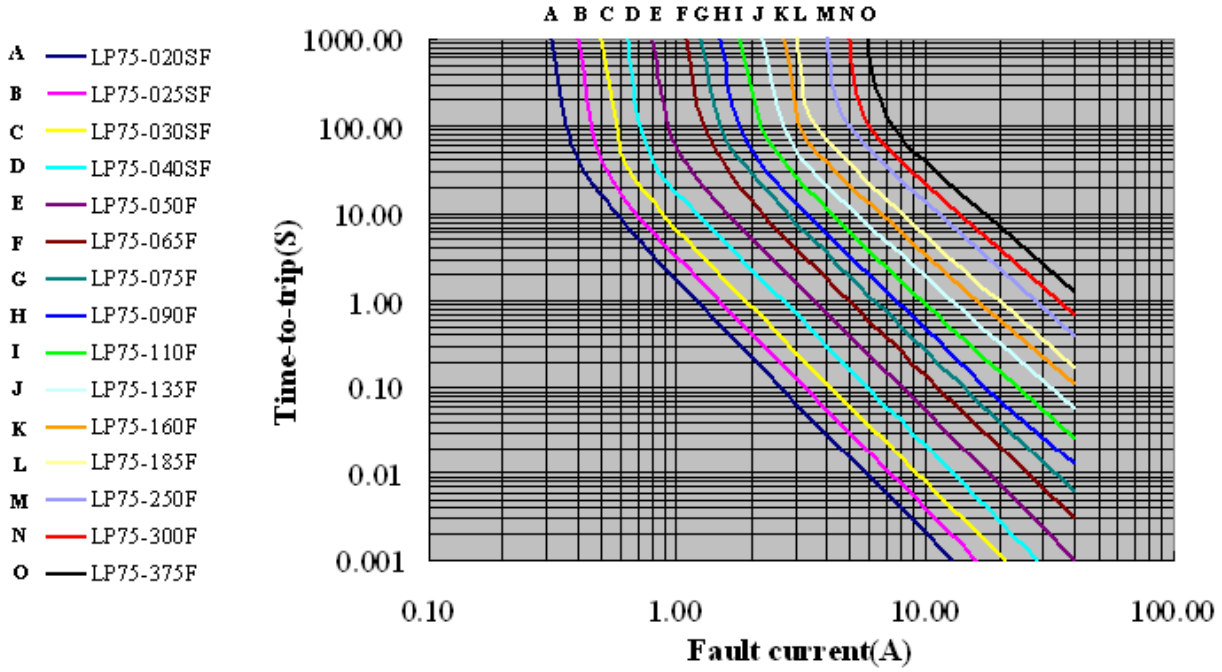
Thermal Derating Chart-$I_{H(A)}$

Part number	Maximum ambient operating temperatures(℃)								
	-40	-20	0	25	40	50	60	70	85
LP75-020SF	0.34	0.29	0.25	0.20	0.16	0.14	0.13	0.10	0.07
LP75-025SF	0.42	0.36	0.31	0.25	0.20	0.18	0.16	0.12	0.09
LP75-030SF	0.52	0.44	0.38	0.30	0.24	0.22	0.18	0.14	0.10
LP75-040SF	0.66	0.57	0.50	0.40	0.32	0.29	0.24	0.20	0.14
LP75-050F	0.83	0.74	0.63	0.50	0.41	0.36	0.30	0.25	0.18
LP75-065F	1.10	0.95	0.82	0.65	0.53	0.47	0.40	0.33	0.24
LP75-075F	1.26	1.11	0.95	0.75	0.61	0.54	0.45	0.39	0.28
LP75-090F	1.52	1.30	1.15	0.90	0.73	0.65	0.55	0.47	0.33
LP75-110F	1.82	1.60	1.35	1.10	0.89	0.79	0.65	0.55	0.40
LP75-135F	2.20	1.91	1.65	1.35	1.09	0.96	0.80	0.68	0.50
LP75-160F	2.60	2.30	1.95	1.60	1.30	1.13	1.00	0.80	0.60
LP75-185F	3.00	2.63	2.30	1.85	1.50	1.33	1.12	0.92	0.67
LP75-250F	4.05	3.58	3.02	2.50	2.02	1.80	1.55	1.30	0.90
LP75-300F	4.82	4.16	3.62	3.00	2.43	2.16	1.85	1.50	1.09
LP75-375F	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℃	$R_{min} \leqslant R \leqslant R_{max}$
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℃



Package Information

Bulk:

LP75-020SF~LP75-065F……1000pcs per bag

LP75-075F~LP75-135F…… 500pcs per bag

LP75-160F~LP75-375F……1000pcs per bag

Tape & Reel:

LP75-020SF~LP75-090F……3000pcs per reel

LP75-110F~LP75-160F……1500pcs per reel

LP75-185F~LP75-375F……1000pcs per reel