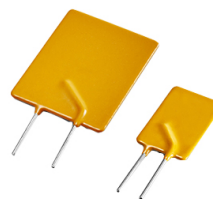




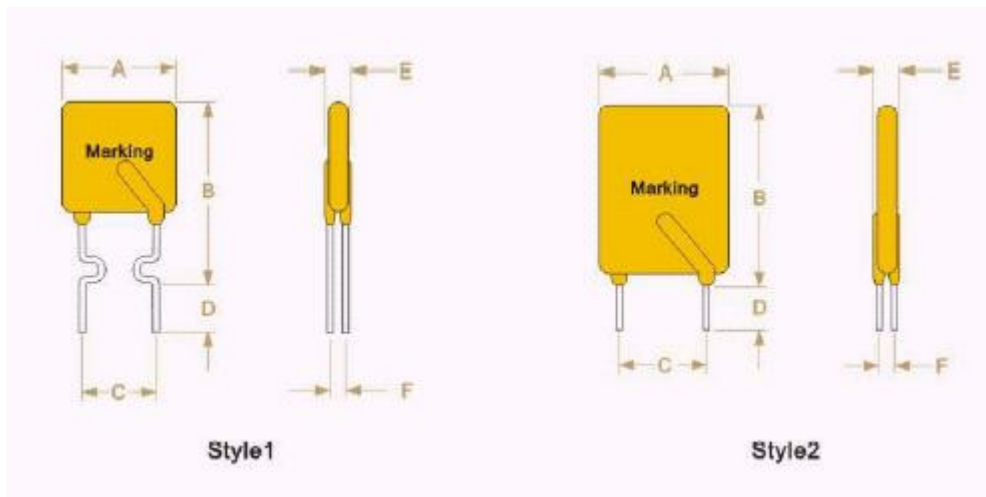
### Features

- 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

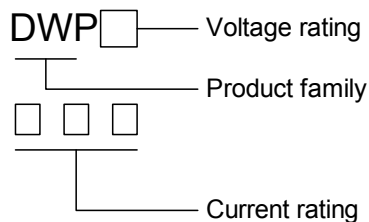


### Product Dimensions

| Part number | A    | B    | C    | D    | E    | F    | Lead  |         |
|-------------|------|------|------|------|------|------|-------|---------|
|             | Max. | Max. | Typ. | Min. | Max. | Typ. | Style | Size(φ) |
| DWP30-090F  | 6.0  | 13.8 | 5.1  | 7.6  | 3.0  | 0.9  | 1     | 0.5     |
| DWP30-110F  | 8.2  | 14.0 | 5.1  | 7.6  | 3.0  | 0.9  | 1     | 0.5     |
| DWP30-135F  | 8.9  | 14.0 | 5.1  | 7.6  | 3.0  | 0.9  | 1     | 0.5     |
| DWP30-160SF | 9.0  | 17.0 | 5.1  | 7.6  | 3.0  | 0.9  | 1     | 0.5     |
| DWP30-185F  | 11.0 | 17.0 | 5.1  | 7.6  | 3.0  | 0.9  | 1     | 0.6     |
| DWP30-250F  | 11.2 | 19.0 | 5.1  | 7.6  | 3.0  | 0.9  | 1     | 0.6     |
| DWP30-300F  | 12.0 | 22.5 | 5.1  | 7.6  | 3.0  | 1.2  | 2     | 0.8     |
| DWP30-400F  | 14.2 | 25.5 | 5.1  | 7.6  | 3.0  | 1.2  | 2     | 0.8     |
| DWP30-500F  | 14.5 | 30.0 | 10.2 | 7.6  | 3.0  | 1.2  | 2     | 0.8     |
| DWP30-600F  | 17.0 | 30.0 | 10.2 | 7.6  | 3.0  | 1.2  | 2     | 0.8     |
| DWP30-700F  | 19.4 | 32.0 | 10.2 | 7.6  | 3.0  | 1.2  | 2     | 0.8     |
| DWP30-800F  | 21.0 | 34.5 | 10.2 | 7.6  | 3.0  | 1.2  | 2     | 0.8     |
| DWP30-900F  | 24.5 | 35.0 | 10.2 | 7.6  | 3.0  | 1.2  | 2     | 0.8     |



### Marking system



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





## Electrical Characteristics

| Part number | $I_H$ | $I_T$ | Max.Time-to-trip |      | $V_{max}$ | $I_{max}$ | $Pd_{typ}$ | $R_{min}$    | $R_{max}$    | $R_{1max}$   |
|-------------|-------|-------|------------------|------|-----------|-----------|------------|--------------|--------------|--------------|
|             | (A)   | (A)   | (A)              | (S)  | (V)       | (A)       | (W)        | ( $\Omega$ ) | ( $\Omega$ ) | ( $\Omega$ ) |
| DWP30-090F  | 0.90  | 1.80  | 4.50             | 7.1  | 30        | 40        | 0.91       | 0.070        | 0.120        | 0.220        |
| DWP30-110F  | 1.10  | 2.20  | 5.50             | 6.6  | 30        | 40        | 1.00       | 0.050        | 0.100        | 0.170        |
| DWP30-135F  | 1.35  | 2.70  | 6.75             | 7.3  | 30        | 40        | 1.11       | 0.040        | 0.080        | 0.130        |
| DWP30-160SF | 1.60  | 3.20  | 8.00             | 8.0  | 30        | 40        | 1.20       | 0.030        | 0.070        | 0.110        |
| DWP30-185F  | 1.85  | 3.70  | 9.25             | 8.7  | 30        | 40        | 1.27       | 0.030        | 0.060        | 0.090        |
| DWP30-250F  | 2.50  | 5.00  | 12.50            | 10.3 | 30        | 40        | 1.34       | 0.020        | 0.040        | 0.070        |
| DWP30-300F  | 3.00  | 6.00  | 15.00            | 10.8 | 30        | 40        | 2.00       | 0.020        | 0.050        | 0.080        |
| DWP30-400F  | 4.00  | 8.00  | 20.00            | 12.7 | 30        | 40        | 2.50       | 0.010        | 0.030        | 0.050        |
| DWP30-500F  | 5.00  | 10.00 | 25.00            | 14.5 | 30        | 40        | 3.00       | 0.010        | 0.030        | 0.050        |
| DWP30-600F  | 6.00  | 12.00 | 30.00            | 16.0 | 30        | 40        | 3.50       | 0.005        | 0.020        | 0.040        |
| DWP30-700F  | 7.00  | 14.00 | 35.00            | 17.5 | 30        | 40        | 3.80       | 0.005        | 0.020        | 0.030        |
| DWP30-800F  | 8.00  | 16.00 | 40.00            | 18.8 | 30        | 40        | 4.00       | 0.005        | 0.020        | 0.020        |
| DWP30-900F  | 9.00  | 18.00 | 40.00            | 20.0 | 30        | 40        | 4.20       | 0.005        | 0.010        | 0.020        |

$I_H$ =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.

Max.Time-to-trip =Maximum time to trip(s) 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°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   |
| DWP30-090F  | 1.40                                       | 1.25  | 1.10  | 0.90 | 0.75 | 0.69 | 0.65 | 0.60 | 0.50 |
| DWP30-110F  | 1.75                                       | 1.52  | 1.33  | 1.10 | 0.99 | 0.90 | 0.80 | 0.73 | 0.63 |
| DWP30-135F  | 2.15                                       | 1.94  | 1.70  | 1.35 | 1.20 | 1.14 | 1.00 | 0.90 | 0.81 |
| DWP30-160SF | 2.49                                       | 2.21  | 1.94  | 1.60 | 1.42 | 1.31 | 1.19 | 1.03 | 0.88 |
| DWP30-185F  | 2.87                                       | 2.59  | 2.28  | 1.85 | 1.63 | 1.52 | 1.33 | 1.21 | 1.05 |
| DWP30-250F  | 3.82                                       | 3.44  | 3.03  | 2.50 | 2.17 | 2.00 | 1.81 | 1.59 | 1.39 |
| DWP30-300F  | 4.55                                       | 4.10  | 3.60  | 3.00 | 2.65 | 2.51 | 2.24 | 2.01 | 1.74 |
| DWP30-400F  | 6.00                                       | 5.40  | 4.74  | 4.00 | 3.47 | 3.28 | 2.82 | 2.63 | 2.26 |
| DWP30-500F  | 7.44                                       | 6.68  | 5.80  | 5.00 | 4.30 | 4.03 | 3.58 | 3.22 | 2.77 |
| DWP30-600F  | 8.90                                       | 7.99  | 7.08  | 6.00 | 5.13 | 4.82 | 4.27 | 3.84 | 3.30 |
| DWP30-700F  | 10.35                                      | 9.30  | 8.21  | 7.00 | 5.95 | 5.58 | 4.96 | 4.46 | 3.84 |
| DWP30-800F  | 11.60                                      | 10.60 | 9.35  | 8.00 | 6.79 | 6.36 | 5.64 | 5.07 | 4.36 |
| DWP30-900F  | 13.25                                      | 11.90 | 10.49 | 9.00 | 7.53 | 7.12 | 6.32 | 5.69 | 4.88 |

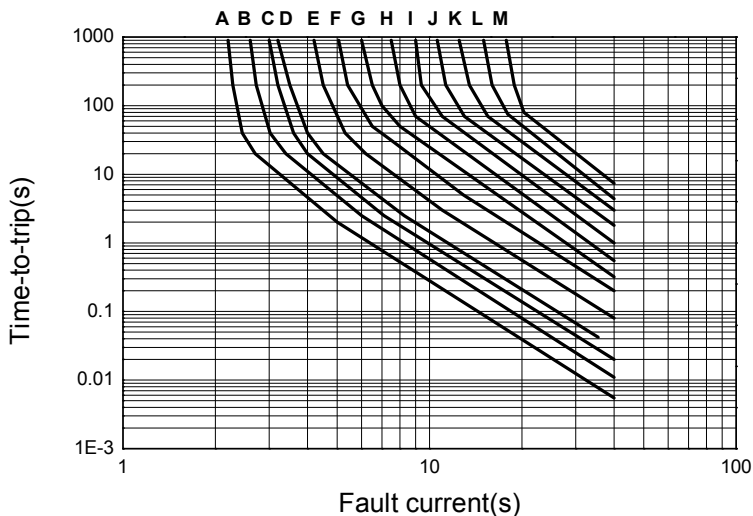
## Test Procedures And Requirements

| Test            | Test Conditions                     | Accept/Reject Criteria        |
|-----------------|-------------------------------------|-------------------------------|
| Resistance      | In still air @ 25°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  | $V_{max}$ , 24hours                 | No arcing or burning          |



Typical Time-to-Trip Charts at 25°C

- A=DWP30-090F
- B=DWP30-110F
- C=DWP30-135F
- D=DWP30-160SF
- E=DWP30-185F
- F=DWP30-250F
- G=DWP30-300F
- H=DWP30-400F
- I=DWP30-500F
- J=DWP30-600F
- K=DWP30-700F
- L=DWP30-800F
- M=DWP30-900F



Package Information

Bulk:

- DWP30-090F~DWP30-185F.....1000pcs per bag
- DWP30-250F~DWP30-800F.....500pcs per bag
- DWP30-900F.....200pcs per bag

Tape & Reel:

- DWP30-090F~DWP30-160SF.....3000pcs per reel
- DWP30-185F~DWP30-400F.....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.