

Features



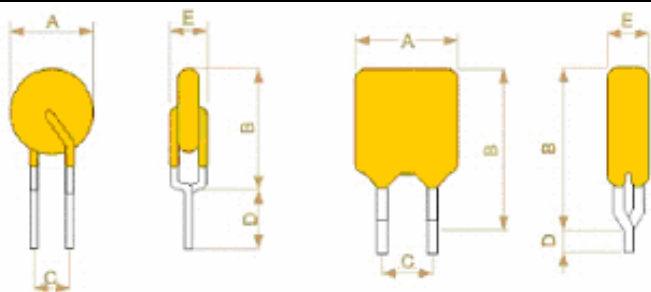
- Radial leaded devices
- High voltage surge capabilities
- Cured, flame retardant epoxy polymer insulating material meets UL94 V-0 requirements
- Available in lead-free version
- Agency Recognition: UL、CSA、TUV



DWB series R-line devices

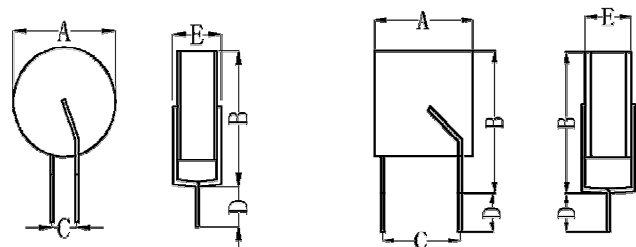
Product Dimensions

| Part number | A | B | C | D | E | Lead | |
|-------------|------|------|------|------|------|-------|---------|
| | Max. | Max. | Max. | Min. | Max. | Style | Size(φ) |
| DWB030F | 4.5 | 9.3 | 5.1 | 4.7 | 4.6 | 1 | 0.5 |
| DWB050F | 4.5 | 9.3 | 5.1 | 4.7 | 4.6 | 1 | 0.5 |
| DWB080F | 5.8 | 9.9 | 5.1 | 4.7 | 4.6 | 1 | 0.6 |
| DWB080UF | 4.8 | 9.3 | 5.1 | 4.7 | 3.8 | 3 | 0.6 |
| DWB110F | 6.5 | 11.0 | 5.1 | 4.7 | 4.6 | 1 | 0.6 |
| DWB110UF | 6.0 | 10.0 | 5.1 | 4.7 | 3.8 | 3 | 0.6 |
| DWB120F | 6.5 | 11.0 | 5.1 | 4.7 | 4.6 | 2 | 0.6 |
| DWB120UF | 6.0 | 10.0 | 5.1 | 4.7 | 3.8 | 4 | 0.6 |
| DWB145F | 6.5 | 11.0 | 5.1 | 4.7 | 4.6 | 2 | 0.6 |
| DWB145UF | 6.0 | 10.0 | 5.1 | 4.7 | 3.8 | 4 | 0.6 |
| DWB180F | 11.0 | 13.6 | 5.1 | 4.7 | 4.6 | 2 | 0.6 |
| DWB180UF | 10.4 | 12.6 | 5.1 | 4.7 | 3.8 | 4 | 0.6 |



Style 1

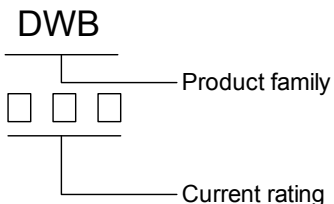
Style 2



Style 3

Style 4

Marking system



- *The suffix "U" means no outside envelop
- *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) | Current(A) | Time(s) | (V) | (A) | (W) | (Ω) | (Ω) | (Ω) |
| DWB030F | 0.030 | 0.060 | 0.35 | 0.25 | 250 | 3 | 1.0 | 70.00 | 130.00 | 180.00 |
| DWB050F | 0.050 | 0.100 | 1.00 | 0.25 | 250 | 3 | 1.0 | 20.00 | 45.00 | 65.00 |
| DWB080F | 0.080 | 0.160 | 0.35 | 3.00 | 250 | 3 | 1.0 | 15.00 | 22.00 | 33.00 |
| DWB080UF | 0.080 | 0.160 | 0.35 | 3.00 | 250 | 3 | 1.0 | 14.00 | 20.00 | 33.00 |
| DWB110F | 0.110 | 0.220 | 1.00 | 0.80 | 250 | 3 | 1.0 | 7.00 | 15.00 | 16.00 |
| DWB110UF | 0.110 | 0.220 | 1.00 | 0.75 | 250 | 3 | 1.0 | 8.00 | 14.00 | 16.00 |
| DWB120F | 0.120 | 0.240 | 1.00 | 1.00 | 250 | 3 | 1.0 | 4.00 | 12.00 | 16.00 |
| DWB120UF | 0.120 | 0.240 | 1.00 | 0.95 | 250 | 3 | 1.0 | 6.00 | 12.00 | 16.00 |
| DWB145F | 0.145 | 0.290 | 1.00 | 2.50 | 250 | 3 | 1.0 | 3.00 | 7.50 | 14.00 |
| DWB145UF | 0.145 | 0.290 | 1.00 | 2.00 | 250 | 3 | 1.0 | 3.50 | 6.50 | 14.00 |
| DWB180F | 0.180 | 0.360 | 1.00 | 21.00 | 250 | 10 | 1.0 | 0.80 | 2.50 | 3.40 |
| DWB180UF | 0.180 | 0.360 | 1.00 | 15.00 | 250 | 10 | 1.0 | 0.80 | 2.00 | 3.40 |

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 interrupt 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 device resistance 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 |
| DWB030F | 0.053 | 0.047 | 0.037 | 0.030 | 0.039 | 0.025 | 0.016 | 0.019 | 0.013 |
| DWB050F | 0.076 | 0.068 | 0.061 | 0.050 | 0.042 | 0.038 | 0.030 | 0.026 | 0.020 |
| DWB080F/DWB080UF | 0.124 | 0.110 | 0.095 | 0.080 | 0.066 | 0.059 | 0.051 | 0.044 | 0.033 |
| DWB110F/DWB110UF | 0.171 | 0.151 | 0.131 | 0.110 | 0.091 | 0.081 | 0.071 | 0.061 | 0.046 |
| DWB120F/DWB120UF | 0.191 | 0.170 | 0.148 | 0.120 | 0.104 | 0.093 | 0.082 | 0.071 | 0.055 |
| DWB145F/DWB145UF | 0.225 | 0.199 | 0.172 | 0.145 | 0.119 | 0.106 | 0.093 | 0.080 | 0.060 |
| DWB180F/DWB180UF | 0.269 | 0.240 | 0.211 | 0.180 | 0.153 | 0.138 | 0.123 | 0.109 | 0.087 |

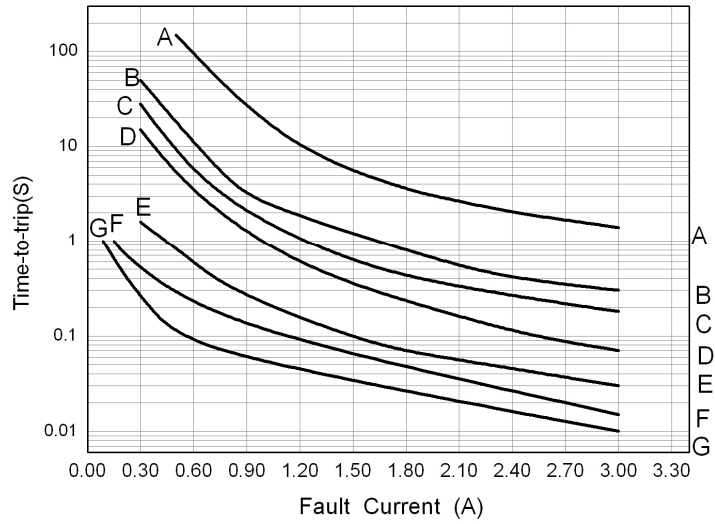
Test Procedures And Requirements

| 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=DWB180F/180UF

B=DWB/145F/145UF
 C=DWB120F/120UF
 D=DWB110F/110UF
 E=DWB080F/080UF
 F=DWB030F
 G=DWB050F



Package Information

Bulk:

DWB030F~DWB180F1000pcs per bag
 DWB080UF~ DWB180UF.....1000pcs per bag

Tape & Reel:

DWB030F~DWB180F3000pcs per reel
 DWB080UF~ DWB180UF.....3000pcs per reel