

## 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

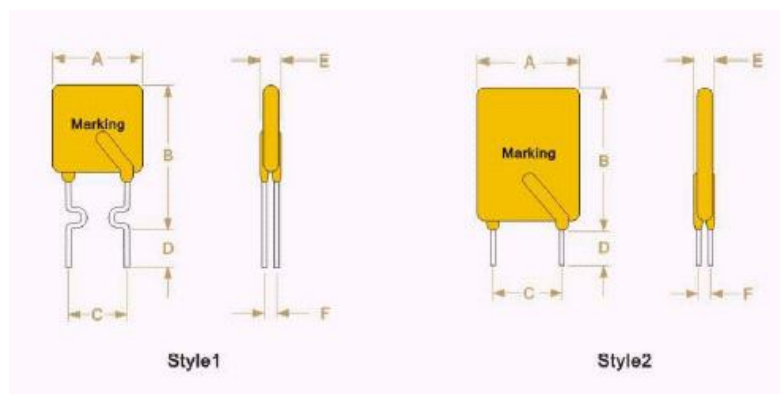


## DWP33 series

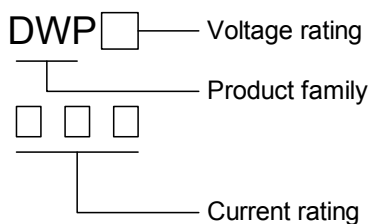
R-line devices

## Product Dimensions

Part number	A	B	C	D	E	F	Lead	
	Max.	Max.	Typ.	Min.	Max.	Typ.	Style	Size(φ)
DWP33-090F	6.0	13.0	5.1	7.6	3.0	0.9	1	0.6
DWP33-110F	6.0	14.0	5.1	7.6	3.0	0.9	1	0.6
DWP33-120F	7.4	12.2	5.1	7.6	3.0	0.9	1	0.6
DWP33-135F	8.2	14.0	5.1	7.6	3.0	0.9	1	0.6
DWP33-160F	8.0	15.5	5.1	7.6	3.0	0.9	1	0.6
DWP33-185F	9.0	16.5	5.1	7.6	3.0	0.9	1	0.6
DWP33-190F	9.0	16.5	5.1	7.6	3.0	0.9	1	0.6
DWP33-250F	9.0	19.0	5.1	7.6	3.0	0.9	1	0.6
DWP33-300F	11.0	17.0	5.1	7.6	3.0	1.2	2	0.8
DWP33-400F	14.2	19.5	5.1	7.6	3.0	1.2	2	0.8
DWP33-500F	15.1	21.1	10.2	7.6	3.0	1.2	2	0.8
DWP33-600F	15.1	24.1	10.2	7.6	3.0	1.2	2	0.8
DWP33-700F	17.0	30.0	10.2	7.6	3.0	1.2	2	0.8
DWP33-800F	18.0	31.0	10.2	7.6	3.0	1.2	2	0.8
DWP33-900F	23.5	28.5	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 <sub>H</sub> (A)	I <sub>T</sub> (A)	Max.Time-to-trip (A) (S)		V <sub>max</sub> (V)	I <sub>max</sub> (A)	Pd <sub>typ</sub> (W)	R <sub>min</sub> (Ω)	R <sub>max</sub> (Ω)	R <sub>1max</sub> (Ω)
DWP33-090F	0.90	1.80	4.50	7.1	33	40	0.91	0.070	0.120	0.220
DWP33-110F	1.10	2.20	5.50	6.6	33	40	1.00	0.050	0.100	0.170
DWP33-120F	1.20	2.30	6.00	3.5	33	40	0.78	0.074	0.120	0.180
DWP33-135F	1.35	2.50	6.75	4.5	33	40	0.84	0.059	0.100	0.143
DWP33-160F	1.60	3.20	8.00	8.0	33	40	1.20	0.030	0.070	0.110
DWP33-185F	1.85	3.70	9.25	8.7	33	40	1.27	0.030	0.060	0.090
DWP33-190F	1.90	3.00	9.50	3.5	33	40	0.90	0.045	0.063	0.092
DWP33-250F	2.50	5.00	12.50	10.3	33	40	1.34	0.020	0.040	0.070
DWP33-300F	3.00	6.00	15.00	10.8	33	40	2.00	0.020	0.050	0.080
DWP33-400F	4.00	8.00	20.00	12.7	33	40	2.50	0.010	0.030	0.050
DWP33-500F	5.00	10.00	25.00	14.5	33	40	3.00	0.010	0.030	0.050
DWP33-600F	6.00	12.00	30.00	16.0	33	40	3.50	0.005	0.020	0.040
DWP33-700F	7.00	14.00	35.00	17.5	33	40	3.80	0.005	0.020	0.030
DWP33-800F	8.00	16.00	40.00	18.8	33	40	4.00	0.005	0.020	0.020
DWP33-900F	9.00	18.00	40.00	20.0	33	40	4.20	0.005	0.010	0.020

I<sub>H</sub>=Hold current: maximum current at which the device will not trip at 25°C still air.

I<sub>T</sub>=Trip current: minimum current at which the device will always trip at 25°C still air.

V<sub>max</sub>=Maximum voltage device can withstand without damage at rated current.

I<sub>max</sub>=Maximum fault current device can withstand without damage at rated voltage.

Max.Time-to-trip =Maximum time to trip(s) at assigned current.

Pd<sub>typ</sub>=Typical power dissipation: typical amount of power dissipated by the device when in state air environment.

R<sub>min</sub>=Minimum device resistance at 25°C prior to tripping.

R<sub>max</sub>=Maximum device resistance at 25°C prior to tripping.

R<sub>1max</sub>= Maximum resistance of device when measured one hour post trip at 25°C.

## Thermal Derating Chart-I<sub>H</sub>(A)

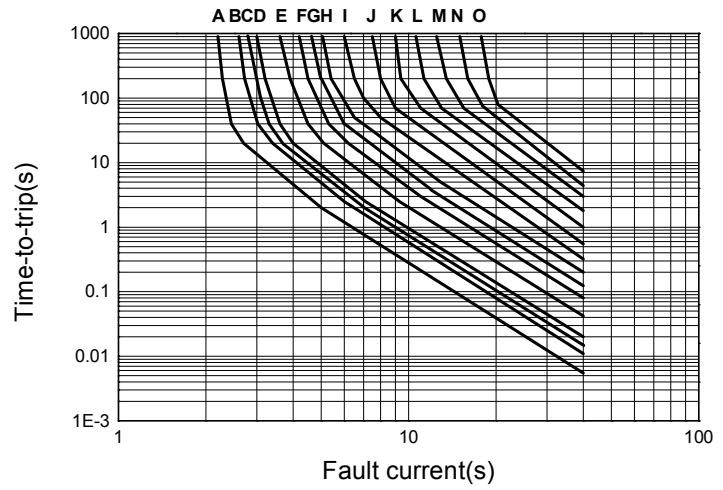
Part number	Maximum ambient operating temperatures(°C)								
	-40	-20	0	25	40	50	60	70	85
DWP33-090F	1.40	1.25	1.10	0.90	0.75	0.69	0.65	0.60	0.50
DWP33-110F	1.75	1.52	1.33	1.10	0.99	0.90	0.80	0.73	0.63
DWP33-120F	1.74	1.56	1.38	1.20	1.00	0.92	0.82	0.73	0.60
DWP33-135F	1.96	1.76	1.55	1.35	1.12	1.04	0.92	0.82	0.68
DWP33-160F	2.49	2.21	1.94	1.60	1.42	1.31	1.19	1.03	0.88
DWP33-185F	2.87	2.59	2.28	1.85	1.63	1.52	1.33	1.21	1.05
DWP33-190F	2.76	2.47	1.55	1.90	1.58	1.50	1.29	1.16	0.95
DWP33-250F	3.82	3.44	3.03	2.50	2.17	2.00	1.81	1.59	1.39
DWP33-300F	4.55	4.10	3.60	3.00	2.65	2.51	2.24	2.01	1.74
DWP33-400F	6.00	5.40	4.74	4.00	3.47	3.28	2.82	2.63	2.26
DWP33-500F	7.44	6.68	5.80	5.00	4.30	4.03	3.58	3.22	2.77
DWP33-600F	8.90	7.99	7.08	6.00	5.13	4.82	4.27	3.84	3.30
DWP33-700F	10.35	9.30	8.21	7.00	5.95	5.58	4.96	4.46	3.84
DWP33-800F	11.60	10.60	9.35	8.00	6.79	6.36	5.64	5.07	4.36
DWP33-900F	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 <sub>min</sub> ≤ R ≤ R <sub>max</sub>
Time to Trip	Specified current, V <sub>max</sub> , 25°C	T ≤ maximum Time to Trip
Hold Current	30min, at I <sub>H</sub>	No trip
Trip Cycle Life	V <sub>max</sub> , I <sub>max</sub> , 100cycles	No arcing or burning
Trip Endurance	V <sub>max</sub> , 24hours	No arcing or burning

## Typical Time-to-Trip Charts at 25°C

A=DWP33-090F  
B=DWP33-110F  
C=DWP33-120F  
D=DWP33-135F  
E=DWP33-160F  
F=DWP33-185F  
G=DWP33-190F  
H=DWP33-250F  
I =DWP33-300F  
J=DWP33-400F  
K=DWP33-500F  
L=DWP33-600F  
M=DWP33-700F  
N=DWP33-800F  
O=DWP33-900F



## Package Information

Bulk:

DWP33-090F~DWP33-185F.....1000pcs per bag

DWP33-250F~DWP33-375F.....500pcs per bag

Tape & Reel:

DWP33-090~DWP33-160.....3000pcs per reel

DWP33-185~DWP33-375.....1500pcs per reel