



DATA SHEET

WPSPG Spark Gap Protectors – H Series

Part Numbering System

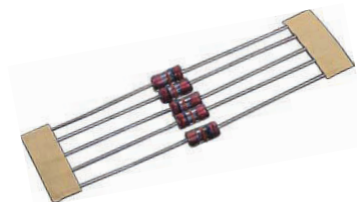
WPSPG - 20 H 200
(1) (2) (3) (4)

(1) World Products Spark Gap Protector

(2) DC Spark-over Voltage
Tolerance: (Example: 20=20% tolerance)

(3) Series Type
H= High Current

(4) DC Spark-over Voltage:
(Example: 200 = 200V)



FEATURES:

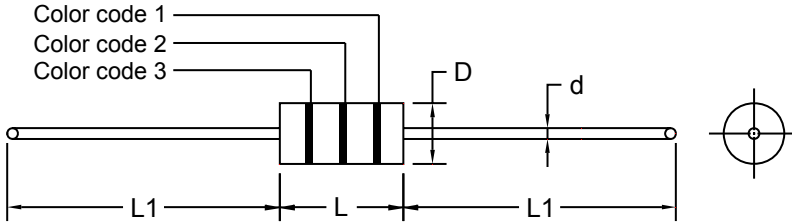
1. RoHS Compliant and Halogen Free
2. UL497B – File #E135015 (see specific voltage values)
3. Fast Responding
4. Low Capacitance
5. Zero leakage current
6. Stable electrical characteristics over time
7. Can withstand repeated surges
8. Symmetrical



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WPSPG Spark Gap Protectors – H Series

DIMENSIONS (in mm)



Item		DC Spark-Over Voltage
L	4.0±0.5	140V – 700V
	7.0±0.5	1000V – 5000V
L1	28.0±3.0	
D	**Φ3.1±0.5	
d	Φ0.5±0.05	

** Parts rated 1000V – 5000V with 3000A rating this dimension is 4.0± 0.5.

ELECTRICAL CHARACTERISTICS

Part Number (For "XX" designation see note below in red.)	DC Spark-Over Voltage V_s (V)	Minimum Insulation Resistance		Maximum Capacitance (1KHz-6V _{MAX}) C (pf)	Surge current capacity (8/20µs)	Surge Life Test (8/20µs)
		Test Voltage (V)	IR OHM (MΩ)			
*WPSPG-XXH140	140	50	100	0.8	3000A	100A 250 times
*WPSPG-XXH200	200	100	100	0.8		
*WPSPG-XXH300	300	100	100	0.8		
*WPSPG-XXH400	400	250	100	0.8		
*WPSPG-XXH500	500	250	100	0.8		
WPSPG-XXH700	700	250	100	0.8		
WPSPG-XXH1000	1000	500	100	0.8	** 2000A	50A 250 times
WPSPG-XXH1500	1500	500	100	0.8		
WPSPG-XXH1800	1800	500	100	0.8		
WPSPG-XXH2000	2000	500	100	0.8		
WPSPG-XXH2400	2400	500	100	0.8		
WPSPG-XXH2700	2700	500	100	0.8		
WPSPG-XXH3000	3000	500	100	0.8		
WPSPG-XXH3600	3600	500	100	0.8		
WPSPG-XXH4000	4000	500	100	0.8		
WPSPG-XXH4500	4500	500	100	0.8		
WPSPG-XXH5000	5000	500	100	0.8		

**Note: $V_s \pm XX\%$ (DC Spark-over Voltage Tolerance 30% and 20%), 140V device is only available in 30% tolerance.
EXAMPLE: XX = 20 for 20% and XX = 30 for 30%.**

* UL497B Recognized (30% tolerance only).

**Parts rated 1000V – 5000V with 3000A rating add "X" suffix to part number.

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COLOR CODE

Part Number	Color Code 1	Color Code 2	Color Code 3
WPSPG-XX140	Brown	Yellow	—
WPSPG-XX200	Red	—	—
WPSPG-XX300	Orange	—	—
WPSPG-XX400	Yellow	—	—
WPSPG-XX500	Green	—	—
WPSPG-XX700	Purple	—	—
WPSPG-XX1000	Brown	Black	Red
WPSPG-XX1500	Brown	Green	Red
WPSPG-XX1800	Brown	Gray	Red
WPSPG-XX2000	Red	Black	Red
WPSPG-XX2400	Red	Yellow	Red
WPSPG-XX2700	Red	Purple	Red
WPSPG-XX3000	Orange	Black	Red
WPSPG-XX3600	Orange	Blue	Red
WPSPG-XX4000	Yellow	Black	Red
WPSPG-XX4500	Yellow	Green	Red
WPSPG-XX5000	Green	Black	Red

TEST METHODS AND RESULTS

ITEM	TEST METHOD	STANDARD
Static Life	10KV with 1500pf condenser is discharged through 2KΩ resistor. 200 times at an interval of 10sec.	Rate-of-change, within± 30% insulation resistance & capacitance, conformed to rated spec.
Cold Resistance	Measurement after -40°C/1000 HRS & normal temperature/2 HRS.	Features are conformed to rated spec.
Heat Resistance	Measurement after 125°C/1000 HRS & normal temperature/2 HRS.	
Humidity Resistance	Measurement after humidity 90~95%(45°C) /1000 HRS & normal temperature/2 HRS.	
Temperature Cycle	10 times repetition of cycle -40°C/30min → normal,temp/2 min → 125°C/30min, measurement after normal temp/2 HRS.	
Solder Ability	Apply flux and immerse in molten solder 230± 5°C for 3sec up to the point of 1.5mm From body. Check for solder adhesion.	Lead wire is evenly covered by solder.
Solder Heat	Measurement after lead wire is dipped up to the point of 1.5mm from body into 260± 5°C solder for 10sec.	Conformed to rated spec.
Pull Strength	Apply 0.5kg load for 10sec.	Lead shall not pull out or snap.
Flexural Strength	Bend lead wire at the point of 2mm from body under 0.25 load and back to its original point. Repeat 1 time.	