

## Product Specification

### Double EL Wire D01 Series

#### Common Characteristics\*

PD 0106/C  
Rev. 10  
20.07.2000

**Storage Conditions**

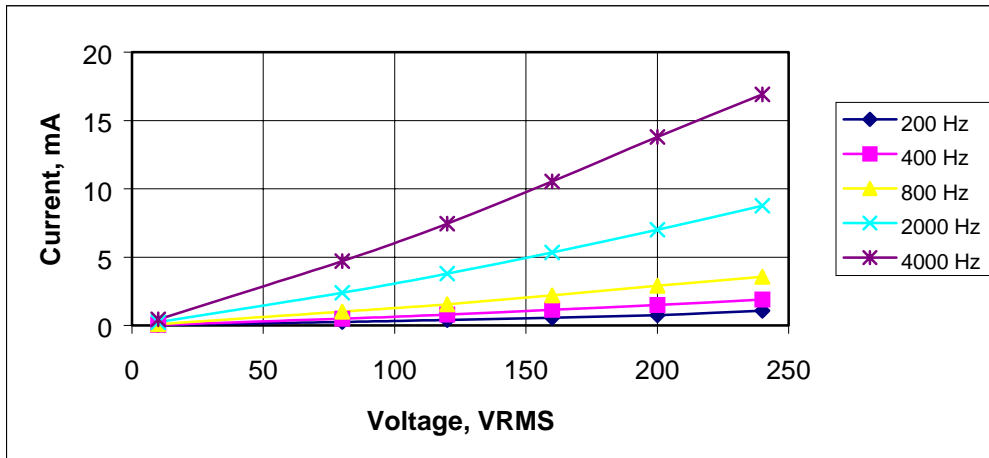
Temperature	-20 to +50 deg. C (-4 to +122 deg. F)
Humidity (R.H.)	not more than 65%
Max. Storage Time	1 year
Operating Temperature	-20 to +50 deg. C (-4 to +122 deg.F)

**Absolute Maximum Ratings**

Overall Dimensions	2.4 / 3.1mm - 3.2 / 3.9 mm (0.094''/ 0.122'' - 0.126''/ 0.153'')
Power Supply Voltage	220 V (RMS)
AC Current	1 A
Dynamic Capacitance (at 10 VAC in darkness)	2.5 nF/m
Stretching Force	2 kg
Twisting Angle	30 degrees per meter
Bending Diameter	more than 16 mm
Operating Length (at 400 Hz/200 V)	1000 m
Insulation Breakdown Voltage	3000 V

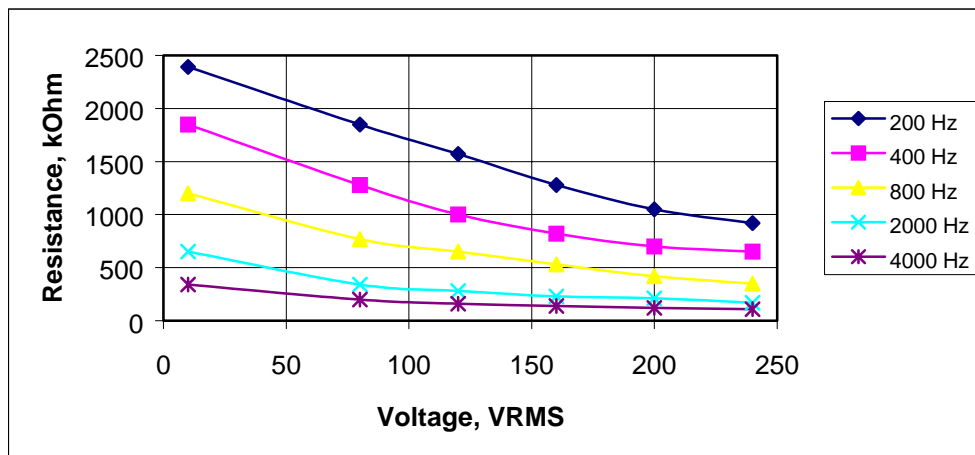
**Current Consumption (mA) of 1 meter length**

Voltage, VRMS	200 Hz	400 Hz	800 Hz	2000 Hz	4000 Hz
10	0.03	0.05	0.10	0.24	0.45
80	0.25	0.50	1.00	2.40	4.70
120	0.40	0.80	1.55	3.80	7.45
160	0.57	1.15	2.20	5.35	10.55
200	0.74	1.50	2.90	7.00	13.80
240	1.07	1.89	3.55	8.75	16.90



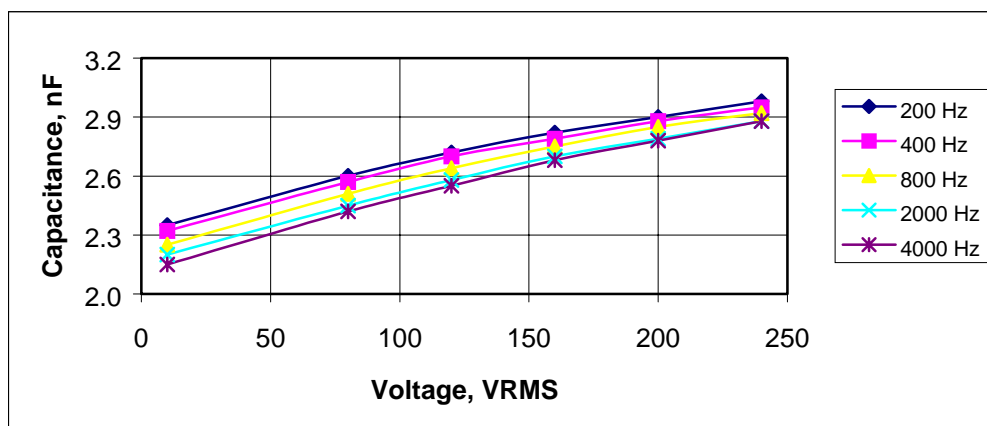
### Equivalent Ohmic Resistance (kOhm) of 1 meter length

Voltage, VRMS	200 Hz	400 Hz	800 Hz	2000 Hz	4000 Hz
10	2390	1850	1200	650	340
80	1850	1280	770	340	250
120	1570	1000	650	280	160
160	1280	820	530	230	140
200	1050	700	420	210	120
240	920	650	350	170	110



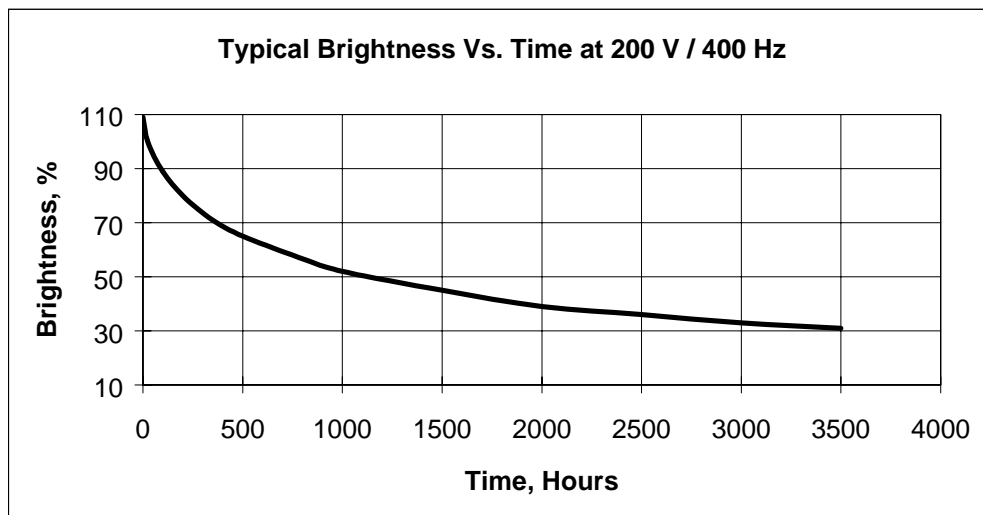
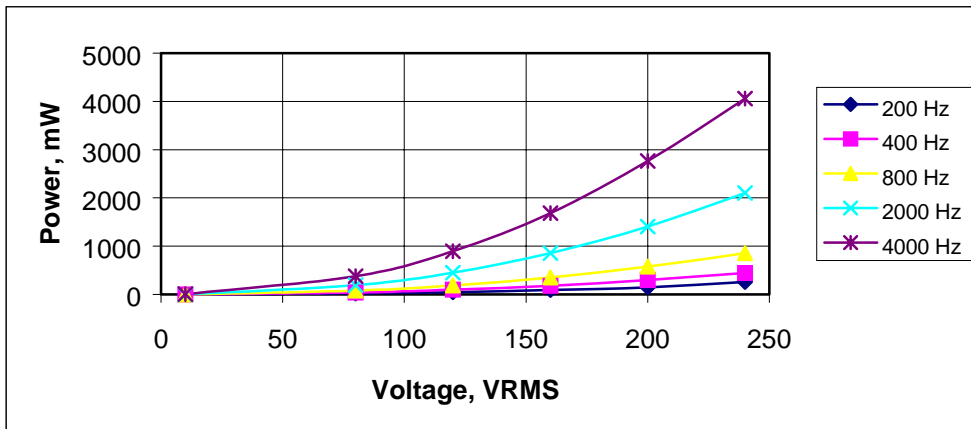
### Equivalent Capacitance (nF) of 1 meter length

Voltage, VRMS	200 Hz	400 Hz	800 Hz	2000 Hz	4000 Hz
10	2.35	2.32	2.25	2.20	2.15
80	2.60	2.57	2.51	2.45	2.42
120	2.72	2.70	2.58	2.52	2.55
160	2.82	2.79	2.70	2.65	2.68
200	2.90	2.88	2.85	2.77	2.80
240	2.98	2.95	2.92	2.88	2.90




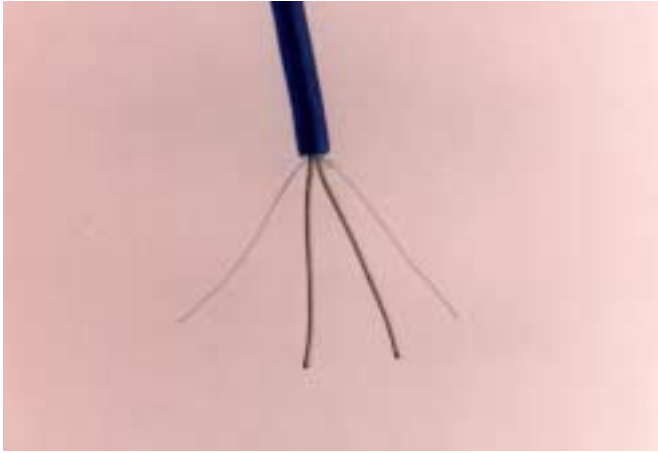

**Power Consumption (mW) of 1 meter length**

Voltage, VRMS	200 Hz	400 Hz	800 Hz	2000 Hz	4000 Hz
80	20	40	80	192	376
120	48	96	186	456	894
160	92	184	352	856	1688
200	148	300	580	1400	2760
240	257	454	852	2100	4056

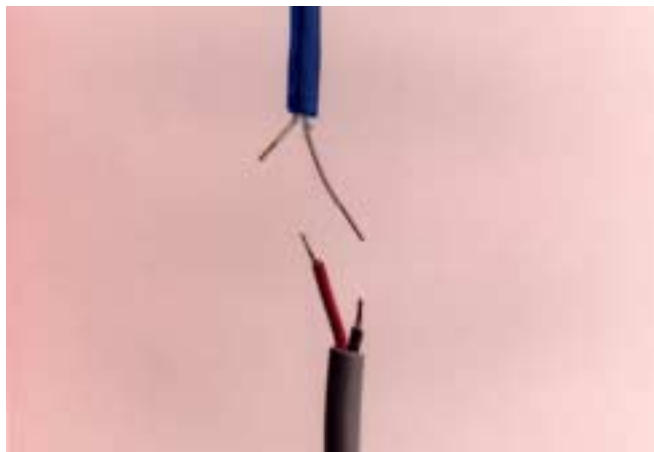


\*Remark: Actual parameters of each lot may vary from Common Characteristics within +/- 20%. All parameters shown for room conditions.

## Contact Preparation. Step by Step Instructions

<p>1.General appearance of Electroluminescent Wire end</p>	
<p>2. Strip off the external insulation using a wire stripper. Be careful not to damage thick electrodes.</p>	
<p>3. Cut off free ends of thin electrodes. Remove dielectric layers from the thick electrodes using a magnet wire stripper or a sharp knife. Care shall be taken not to damage those electrodes.</p>	

4. Strip the insulation from both ends of the electrical wire, to solder them with the EL wire, as shown



5.1 Prepare three pieces of shrinkable tube.  
5.2 Insert the outer shrinkable tube on the electrical wire, aside the soldering area.  
5.3 Insert another shrinkable tube on the longest exposed wire lead (the longer one shown in 4).  
5.4 Solder between the EL shorter lead to the longer lead on the electrical wire (point 1 on the picture).  
5.5 Cover the soldering points with the shrink tube and shrink it.  
5.6 The same for the second leads.  
5.7 Shrink the outer shrinkable tube on both internal shrinks.  
5.8 Avoid excess heat on the EL wire, during heat shrinking.  
5.9 Soldering should be with Tin solder wire flux 2.2%. No acids are allowed to be used in this process.

