

# High Voltage Film Capacitors

## High Voltage Ceramic Disc Capacitor Replacement

### Main Application

Oscillator, timing and LC/RC filter circuits, high frequency coupling of fast digital and analogue ICs.

### Construction

Film/foil inductive type construction with aluminum foil as electrode and plastic film as dielectric coated with flame retardant epoxy resin.

### Climatic Category

40/100/56

### Applicable Specification

IEC 384-13

### Maximum Temperature Rating

100° C

### Capacitance Value, Rated Voltage (DC)

Refer dimension chart

### Insulation Resistance

Minimum Insulation Resistance  $R_{IS}$        $V_R$        $C_R \leq 0.1 \mu F$        $C_R > 0.1 \mu F$   
 (or) time constant =  $C_R \times R_{IS}$   
 at 25° C, relative humidity  $\leq 70\%$        $\geq 630$  V DC      100 G $\Omega$       10000 second RC

### Capacitance Tolerance

$\pm 1\%$ ,  $\pm 2\%$ ,  $\pm 2.5\%$ ,  $\pm 5\%$ ,  $\pm 10\%$

### Voltage Proof

Between terminals: 2 times of rated voltage.

### Tan $\delta$

0.08% (maximum) at 1 kHz.

### Life Test Conditions

*(Loading at elevated temperature)*

Loaded at 1.5 times of rated voltage at 85° C or 1.5 times of category voltage at 100° C for 1000 hours. Category voltage is 80% of rated voltage.

### After the test:

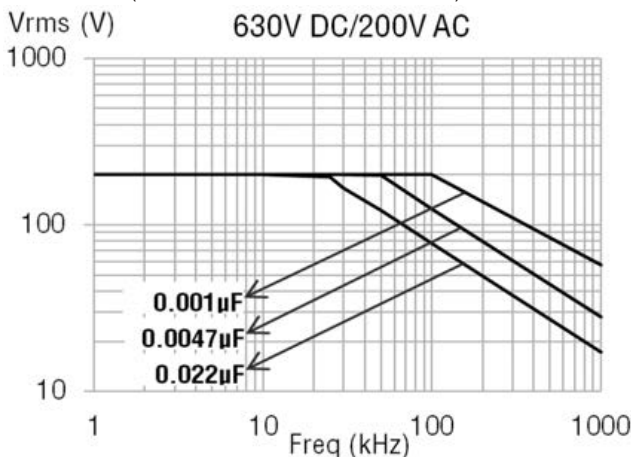
$\Delta c/c$ :  $\leq 5\%$  of initial value.

Increase of Tan  $\delta$ :  $\leq 0.01$  or 1.2 times the value measured before the test, whichever is higher.

Insulation resistance:  $\geq 50\%$  of the value mentioned in IR chart.

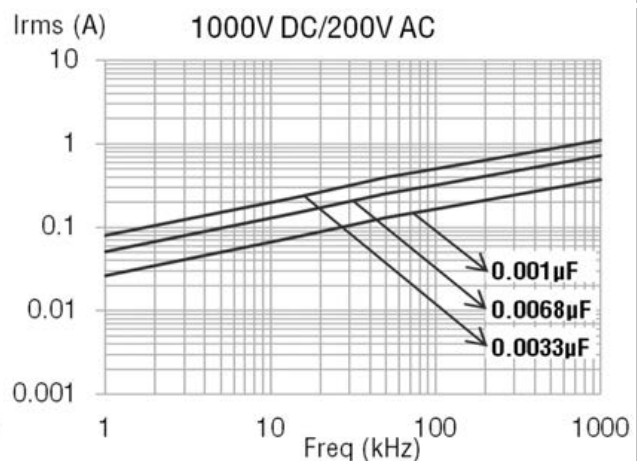
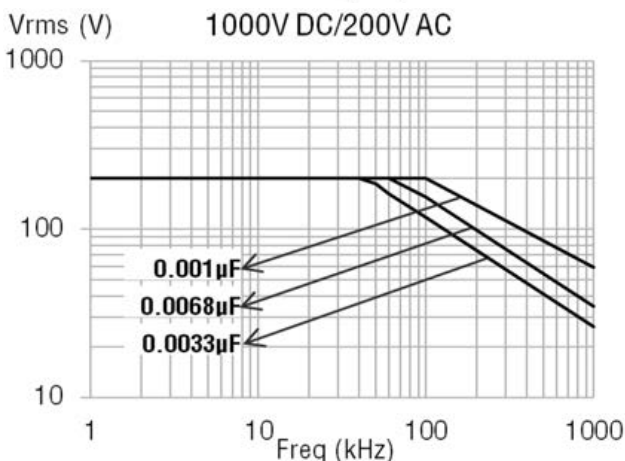
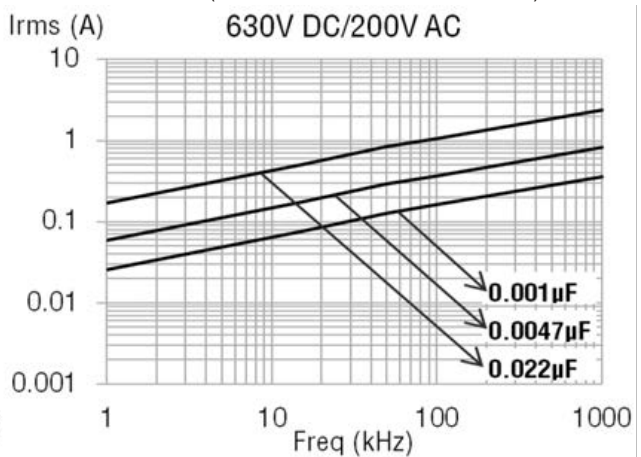
**Max. Voltage (Vrms) vs. Frequency**

(Sinusoidal Waveform at  $T \leq 55^\circ C$ )



**Max. Current (Irms) vs. Frequency**

(Sinusoidal Waveform at  $T \leq 55^\circ C$ )

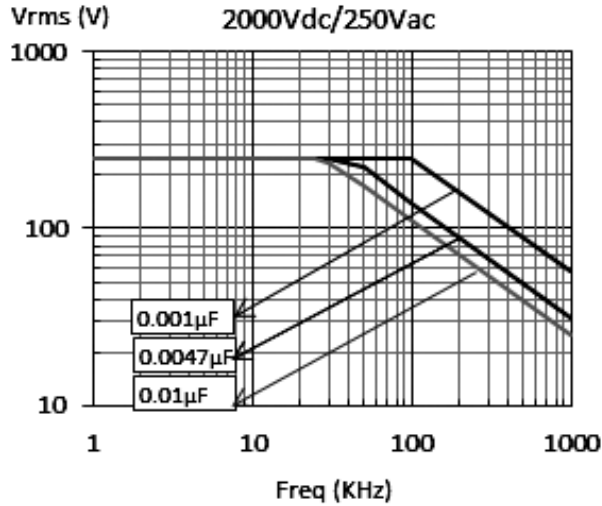


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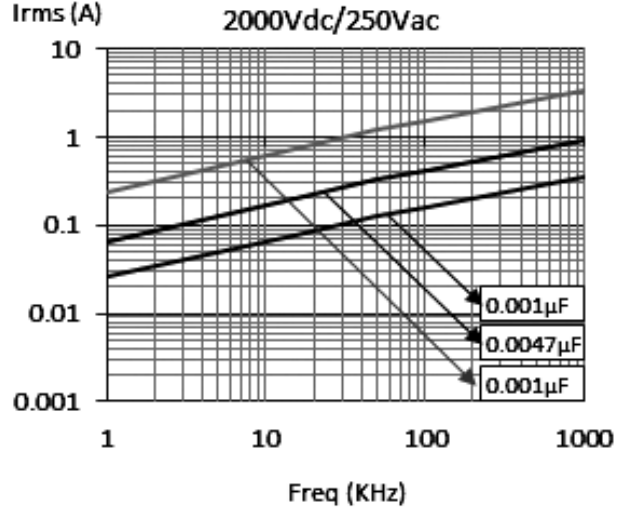
Series Code  
134

## High Voltage Ceramic Disc Capacitor Replacement

Max. Voltage (Vrms) vs. Frequency  
(Sinusoidal Waveform at T ≤ 55° C)

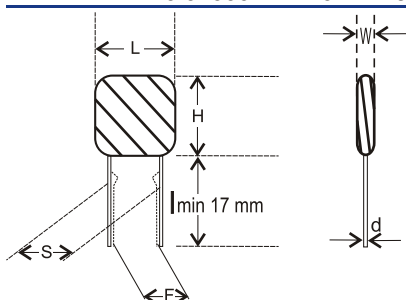


Max. Current (Irms) vs. Frequency  
(Sinusoidal Waveform at T ≤ 55° C)



### Ordering codes and packaging units

| Rated Voltage | Rated Cap. (µfd) | Dimensions (mm) |        |        |         |        |            | DV/DT V/µs | Wt. g | Ordering code            | Packing units |      |
|---------------|------------------|-----------------|--------|--------|---------|--------|------------|------------|-------|--------------------------|---------------|------|
|               |                  | W ±0.5          | H ±0.5 | L ±0.5 | d ±0.05 | S ±0.5 | F 0.8/-0.2 |            |       |                          | Ammo          | Bulk |
| 630V DC       | 0.00010          | 5.5             | 14     | 9.0    | 0.5     | 5.0    | 5          | 10000      | 0.12  | 134 101 +2J <sup>^</sup> | 4500          | 2000 |
|               | 0.00033          | 6.5             | 14     | 9.5    | 0.5     | 5.0    | 5          | 10000      | 0.13  | 134 331 +2J <sup>^</sup> | 4500          | 2000 |
|               | 0.00047          | 4.5             | 12     | 6.5    | 0.5     | 4.0    | 5          | 10000      | 0.16  | 134 471 +2J <sup>^</sup> | 4500          | 2000 |
|               | 0.00068          | 4.5             | 13     | 6.5    | 0.5     | 5.0    | 5          | 10000      | 0.20  | 134 681 +2J <sup>^</sup> | 4500          | 2000 |
|               | 0.00082          | 5.0             | 13     | 7.5    | 0.5     | 4.0    | 5          | 10000      | 0.22  | 134 681 +2J <sup>^</sup> | 4500          | 2000 |
|               | 0.00100          | 5.5             | 13     | 7.5    | 0.5     | 4.0    | 5          | 10000      | 0.24  | 134 102 +2J <sup>^</sup> | 4500          | 2000 |
|               | 0.00150          | 5.0             | 13     | 7.5    | 0.5     | 4.0    | 5          | 10000      | 0.36  | 134 152 +2J <sup>^</sup> | 4500          | 2000 |
|               | 0.00220          | 5.5             | 14     | 8.5    | 0.5     | 5.0    | 5          | 10000      | 0.38  | 134 222 +2J <sup>^</sup> | 4500          | 2000 |
|               | 0.00330          | 5.0             | 14     | 9.5    | 0.5     | 5.0    | 5          | 10000      | 0.41  | 134 332 +2J <sup>^</sup> | 4000          | 2000 |
|               | 0.00470          | 6.0             | 13     | 9.5    | 0.5     | 5.0    | 5          | 10000      | 0.45  | 134 472 +2J <sup>^</sup> | 2500          | 2000 |
| 1000V DC      | 0.00010          | 5.5             | 14     | 9.0    | 0.5     | 5.0    | 5          | 10000      | 0.12  | 134 101 +3A <sup>^</sup> | 4500          | 2000 |
|               | 0.00033          | 6.5             | 14     | 9.5    | 0.5     | 5.0    | 5          | 10000      | 0.13  | 134 331 +3A <sup>^</sup> | 4500          | 2000 |
|               | 0.00047          | 4.5             | 12     | 6.5    | 0.5     | 4.0    | 5          | 10000      | 0.16  | 134 471 +3A <sup>^</sup> | 4500          | 2000 |
|               | 0.00068          | 4.5             | 13     | 6.5    | 0.5     | 5.0    | 5          | 10000      | 0.20  | 134 681 +3A <sup>^</sup> | 4500          | 2000 |
|               | 0.00082          | 5.0             | 13     | 7.5    | 0.5     | 4.0    | 5          | 10000      | 0.22  | 134 681 +3A <sup>^</sup> | 4500          | 2000 |
|               | 0.00100          | 6.0             | 14     | 8.5    | 0.5     | 4.5    | 5          | 10000      | 0.28  | 134 102 +3A <sup>^</sup> | 4500          | 2000 |
|               | 0.00220          | 6.5             | 15     | 9.5    | 0.5     | 5.0    | 5          | 10000      | 0.28  | 134 222 +3A <sup>^</sup> | 4500          | 2000 |
|               | 0.00330          | 6.5             | 14     | 10.0   | 0.5     | 5.0    | 5          | 10000      | 0.35  | 134 332 +3A <sup>^</sup> | 4000          | 2000 |
|               | 0.00470          | 8.0             | 15     | 11.0   | 0.5     | 5.0    | 5          | 10000      | 0.36  | 134 472 +3A <sup>^</sup> | 2500          | 2000 |
|               | 0.00680          | 8.0             | 15     | 11.5   | 0.5     | 5.0    | 5          | 10000      | 0.55  | 134 682 +3A <sup>^</sup> | 2500          | 2000 |
| 2000V DC      | 0.00010          | 5.5             | 14     | 9.0    | 0.5     | 5.0    | 5          | 10000      | 0.12  | 134 101 +3D <sup>^</sup> | 4500          | 2000 |
|               | 0.00033          | 6.5             | 14     | 9.5    | 0.5     | 5.0    | 5          | 10000      | 0.13  | 134 331 +3D <sup>^</sup> | 4500          | 2000 |
|               | 0.00100          | 5.5             | 14     | 9.0    | 0.5     | 5.0    | 5          | 10000      | 0.28  | 134 102 +3D <sup>^</sup> | 4500          | 2000 |
|               | 0.00220          | 6.5             | 14     | 10.5   | 0.5     | 5.0    | 5          | 10000      | 0.31  | 134 222 +3D <sup>^</sup> | 4500          | 2000 |
|               | 0.00470          | 9.0             | 15     | 13.0   | 0.5     | 5.5    | 5          | 10000      | 0.38  | 134 472 +3D <sup>^</sup> | 2500          | 2000 |
|               | 0.01000          | 12.0            | 16     | 16.5   | 0.5     | 7.5    | 5          | 10000      | 0.81  | 134 103 +3D <sup>^</sup> | 2000          | 1000 |



Note: For more details please contact [shariq@dekielectronics.com](mailto:shariq@dekielectronics.com) or [pant@dekielectronics.com](mailto:pant@dekielectronics.com)  
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