High Voltage Ceramic Capacitor Multiplier Sets
With Leads, Class 2 Ceramic

FEATURES
- High voltage ratings
- Compact design
- Small sizes
- Many customized solutions available
- Voltage multipliers
- Completely assembled cascades with stacks and diodes

APPLICATIONS
- Electrostatic paint spraying
The major applications are x-ray equipment for:
- Medical diagnosis
- Dentistry x-ray application
- Industrial x-ray for material control
- Airport security x-ray scanner

CAPACITANCE RANGE
- 120 pF to 1.4 nF per single disc

CERAMIC DIELECTRIC
- R4000 (Y5U)

RATED VOLTAGE
- 8.0 kVDC per single disc
- 10 kVDC per single disc

DESCRIPTION
Voltage multipliers are AC/DC power conversion devices, comprised of diodes and capacitor stacks, that produce a high potential DC voltage from a lower voltage AC source. Multipliers consist of multiple stacks of up to 14 stages. Each stage is comprised of one diode and one capacitor. A high-frequency generator supplies the input AC voltage via a ferrite transformer. Output DC voltage up to 100 kV or higher can be produced, depending on the number of stages.
The most common type of voltage multiplier is the half-wave multiplier, also called the Villard cascade. Another multiplier is the full-wave, also called the Delon circuit.
Vishay has the product lines to offer customized voltage multiplier sets:
- Build up to 14 stages or more
- Circuits are completely assembled and soldered with HV diodes / resistors and screwed connections

Please contact us. Our design team will work with you to find an individually solution.

<table>
<thead>
<tr>
<th>QUICK REFERENCE DATA</th>
<th>VALUE</th>
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<tbody>
<tr>
<td>Ceramic Class</td>
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<tr>
<td>Ceramic Dielectric</td>
<td>R4000 (Y5U)</td>
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<tr>
<td>Type</td>
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<td>Voltage (VDC)</td>
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<td>Min. Capacitance (pF)</td>
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<td>Max. Capacitance (pF)</td>
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<td>Mounting</td>
<td>Leaded</td>
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EXAMPLE WITH DIFFERENT SIZES OF DISCS

EXAMPLE WITH RESISTORS

Note
• For singlestacks see overview: www.vishay.com/capacitors/ceramic/voltage-multipliers/

RELATED DOCUMENTS

| General Information | www.vishay.com/doc?22090 |
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