DESCRIPTION
The MA819A is a small trigger transformer designed for triggering spark gaps.

FEATURES
- Trigger voltage up to 20 kV
- Fast rise time – pulses up to 60 kV/μs
- Flame retardant – approved to UL94 V-2
- Polarity identification - positive or negative pulses can be obtained by appropriate connection

ELECTRICAL AND PHYSICAL CHARACTERISTICS (at 20 °C)
All ratings given are absolute and non-simultaneous. It is the equipment designer’s responsibility to ensure that they are not exceeded. Typical values given are for e2v technologies’ triggered spark gaps.

<table>
<thead>
<tr>
<th></th>
<th>Typical</th>
<th>Max</th>
</tr>
</thead>
<tbody>
<tr>
<td>Input voltage (peak)</td>
<td>100</td>
<td>200 V</td>
</tr>
<tr>
<td>(see notes 1 and 2)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Input energy (see note 2)</td>
<td>3</td>
<td>20 mJ</td>
</tr>
<tr>
<td>Secondary open circuit voltage (peak)</td>
<td>16</td>
<td>32 kV</td>
</tr>
<tr>
<td>(see notes 3 and 4)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Rate of rise of output voltage</td>
<td>30</td>
<td>&lt;60 kV/μs</td>
</tr>
<tr>
<td>(see notes 5 and 6)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pulse repetition rate</td>
<td>5</td>
<td>100 pps</td>
</tr>
<tr>
<td>Output current (peak) (see note 3)</td>
<td>1.0</td>
<td>- A</td>
</tr>
<tr>
<td>Voltage transformation ratio</td>
<td></td>
<td>100:1 min</td>
</tr>
</tbody>
</table>

ENVIRONMENTAL PARAMETERS
Storage temperature       | -40 to +70 °C |
Operating temperature     | -32 to +70 °C |
Net weight                | 25 g approx |

NOTES
(All notes apply to maximum ratings unless stated)
1. Measured at the primary leads.
2. Input energy is drawn from a 1 μF capacitor (0.47 μF capacitor typically).
3. A 10 kΩ wirewound 3 W (minimum) series resistor must be included in the output circuit to protect the secondary winding against excessive high voltage spikes.
4. HT is at the end remote from earthed surfaces.
5. Measured at a maximum repetition rate of 100 pps on the unloaded output pulse with a 200 V primary input voltage measured at the primary leads.
6. Average value measured between 25% and 75% of peak voltage.

OUTLINE (All dimensions in millimetres)

Outline Note
A positive pulse on the primary lead 1 results in a positive HT pulse at lead 3, and a positive pulse at lead 2 results in a negative HT pulse at lead 3.

Whilst e2v technologies has taken care to ensure the accuracy of the information contained herein it accepts no responsibility for the consequences of any use thereof and also reserves the right to change the specification of goods without notice. e2v technologies accepts no liability beyond that set out in its standard conditions of sale in respect of infringement of third party patents arising from the use of tubes or other devices in accordance with information contained herein.

e2v technologies limited, Waterhouse Lane, Chelmsford, Essex CM1 2QJ England Telephone: +44 (0)1245 493493 Facsimile: +44 (0)1245 492492
e-mail: enquiries@e2vtechnologies.com Internet: www.e2vtechnologies.com Holding Company: e2v holdings limited

e2v technologies inc. 4 Westchester Plaza, PO Box 1482, Elmsford, NY10523-1482 USA Telephone: (914) 592-6050 Facsimile: (914) 592-5148
e-mail: enquiries@e2vtechnologies.us

© e2v technologies limited 2003 Printed in England A1A-MA819A Issue 5, May 2003