e2v technologies

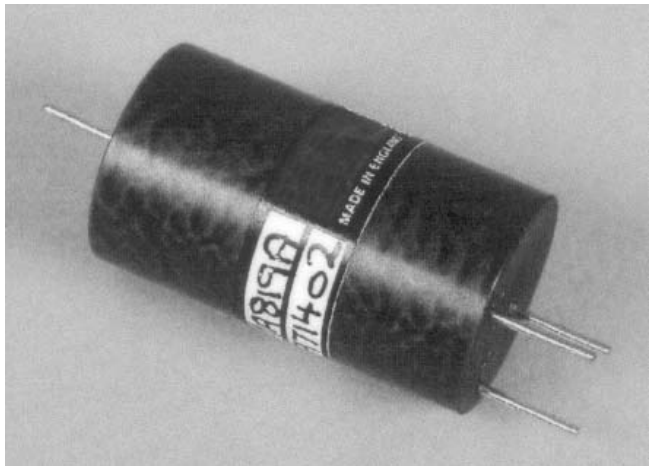
MA819A
Trigger Transformer for Spark Gaps

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.

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

ENVIRONMENTAL PARAMETERS

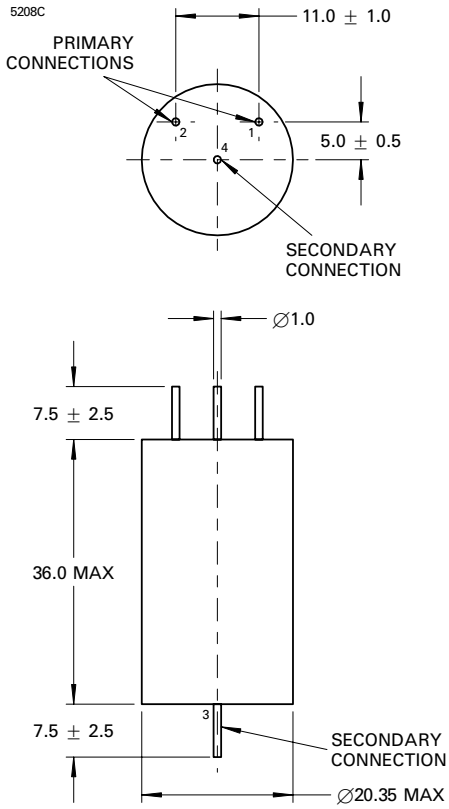
Storage temperature	−40 to +70	°C
Operating temperature	−32 to +70	°C
Net weight	25 g approx	

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.

e2v technologies limited, Waterhouse Lane, Chelmsford, Essex CM1 2QU 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

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