e2v technologies

GXHP Series
2-electrode Spark Gaps

The data should be read in conjunction with the 2-electrode Spark Gap Preamble.

DESCRIPTION

The GXHP Series of 2-electrode spark gaps are gas discharge tubes, hermetically sealed in a glass/metal envelope. Tubes with a DC breakdown voltage in the range 250 V to 10 kV are available. This is signified by a numeral or numerals following the type letters and is expressed in hundreds of volts, e.g. GXHP60 has a 6 kV DC breakdown voltage.

TYPICAL APPLICATIONS

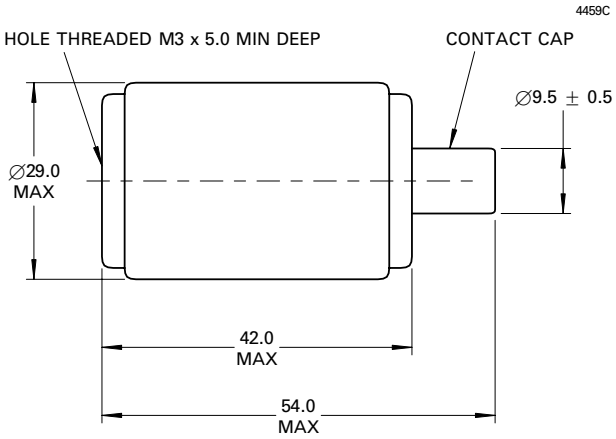
- Single-shot pulse generators
- Voltage surge protection circuits
- Turbine engine ignition circuits
- Medical lithotripsy
- High energy switches

ELECTRICAL AND PHYSICAL CHARACTERISTICS

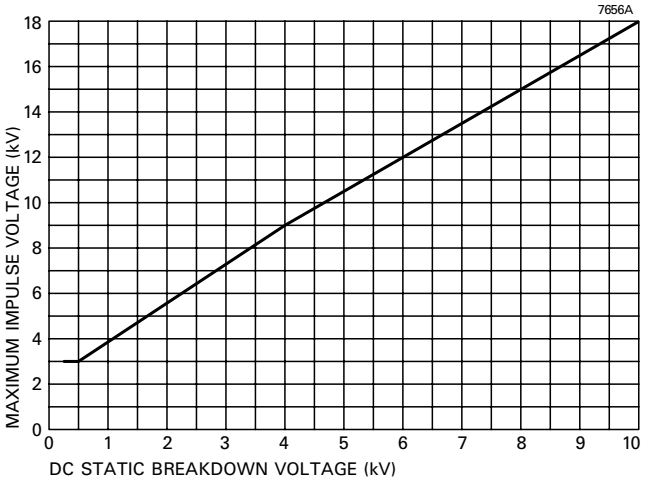
All ratings given in this data sheet are absolute, non-simultaneous ratings. It is the equipment designer's responsibility to ensure that they are not exceeded. The spark gap life depends on circuit conditions such as peak discharge current and duration, charge transfer per discharge and the repetition rate.

DC breakdown voltage range	250 V to 10 kV
Breakdown voltage tolerance	0 to +10%
Impulse ratio, measured at 15 kV/μs	6 max at 500 V dc 2.0 max at 6 kV dc
Peak current, single discharge (8/20 μs waveshape)	30 kA max
Charge transfer, single discharge (8/20 μs waveshape)	0.5 C max
Cumulative charge transfer	6000 C at 0.81 mC per discharge at 3 Hz
Capacitance	5 pF max
Operating temperature	−40 to +125 °C
Mechanical shock, half-sine (to B.S. 2011 test Ea)	40 g for 4 ms
Mounting	screw mounted
Net weight	37 g approx
Radioactivity	tritium (^{3}H), 5.44 MBq (147 μCi) max per device

OUTLINE (All dimensions in millimetres)



MAXIMUM IMPULSE BREAKDOWN VOLTAGE AT 15 kV/μs



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