

1SE607 Puncturing Cutter



The 1SE607 is a pyrotechnic actuated cutter specifically designed to cut a steel tube.

Extremely rugged in construction, the cutter can be used in any application where strength and output power are important in providing linear motion.

Variations

EaglePicher can design and manufacture variations of the 1SE607 to meet customer requirements.

Characteristics

Some of the characteristics listed here are nominal; others are levels to which the units have been tested. There are no limits on design capabilities. Please consult an EaglePicher representative before using this data as a specification.

Specifications

Electrical	
Bridge Resistance @ 70°F (21°C)	1.0 ohm
All-Fire Current	4.5 amp, 20ms
No-Fire Current @ 70°F (21°C)	1.0 amp, 5 min
Insulation Resistance	Before fire: Greater than 1 megohm with 500 Vdc leads to case. Per MIL-STD-202, Method 302, Test Conditions B.
Electrostatic Discharge	MIL-DTL-23659C 25 kW discharge from a 500 pF capacitor applied through a 5,000 ohm serried resistor.
Mechanical	
Size	See Drawing
Connector	MIL-C-24308/3 part number M24308/3-IF, Lead wires are terminated into pins 1 and 2.

Specifications Continued

Lead Length	7 inches
Weight	20 gm
Stroke	Cut a corrosion resistance steel, type 304 tube with an outside diameter of 0.0625 with a wall thickness of 0.016 which is capable of withstanding a gas pressure of 8,500 psig.
Function Time	20 ms
Operating Conditions	-40°F - 140°F
Proof Pressure	8,500 psig
Leakage	Not greater than 60 cm ³ for a period of 10 min after actuation.
Environmental	
Temperature Shock	(-40°F to 85°F)
Humidity	Relative Humidity 50% to 95%, Temperature 68°F to 104°F for 120 hours.
Salt Fog	MIL-STD-810F, Method 509.2, Procedure 1 (5% salt concentration).
Acceleration	MIL-STD-202G, Method 27.2, Test Condition A.
Shock	Shock levels shall be as defined by operating shock response spectrum define by Figure 1.
Random Vibration	Random vibration spectrum shall consist of a frequency: 20 to 5,000 Hz; power spectrum density: 0.01 gravity units squared per hertz.
Freight Classification	
Shipping Name	1SE-607
Identification Number	UN0173
Hazard Classification	1.4S

1SE607

Safety

Maximum pyrotechnic weight:

36 mg Barium Styphnate

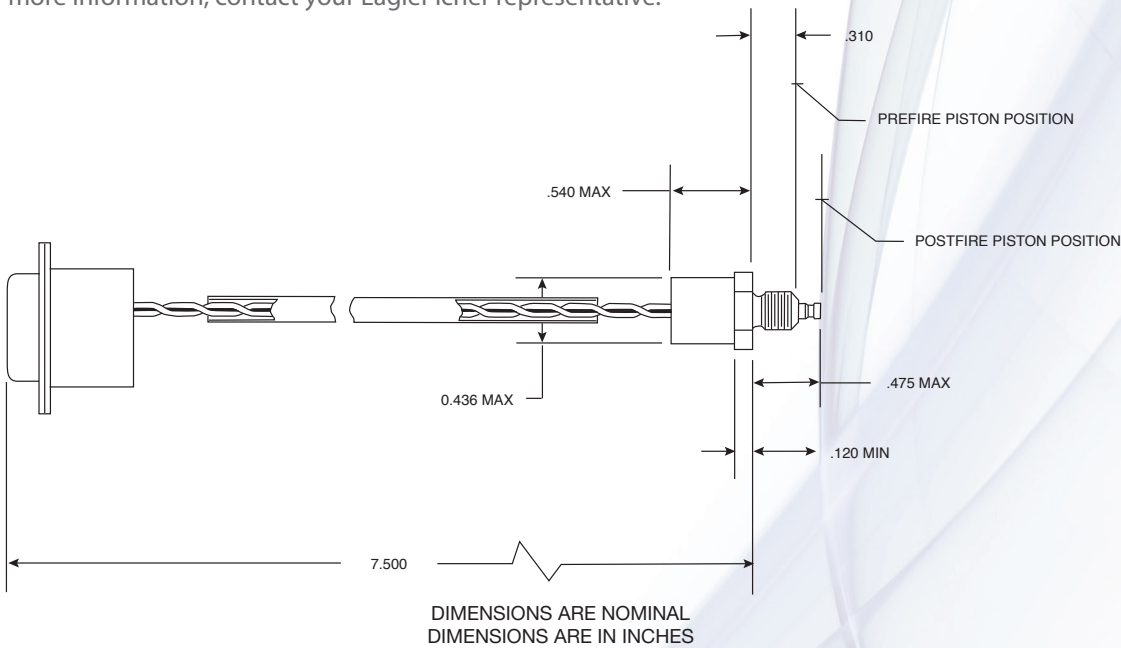
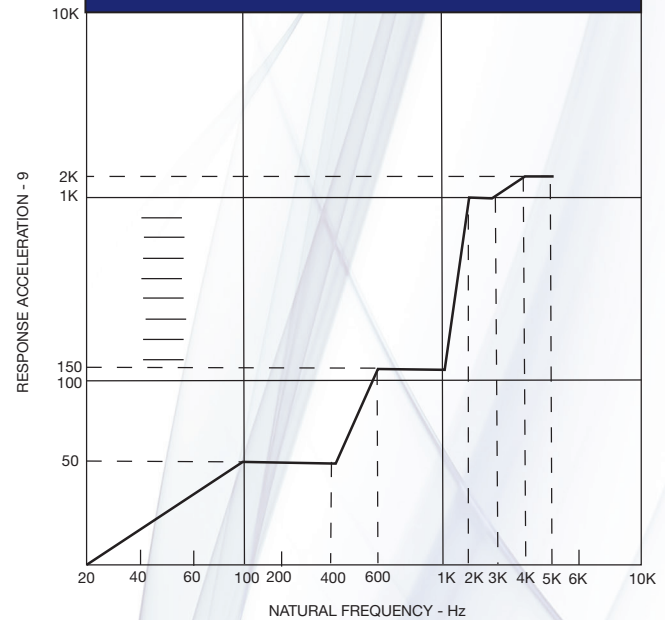
Warning:

The cutter may fire if exposed to temperatures above 200°F (93°C), an electrical charge exceeding the specified no-fire current, or if it is cut open before functioning.

If your company does not have a safety program, it is essential that one is established before explosive items are handled or used. For a brief overview of safety precautions, see the Safety Procedures Data Sheet or contact an EaglePicher representative.

Energetic devices are considered articles; therefore a Material Safety Data Sheet (MSDS) does not apply. However, MSDS may apply to individual components. For more information, contact your EaglePicher representative.

Figure 1 x Shock Response Spectrum



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