

ELECTRIC FUSES (CARTRIDGE TYPE)

Foreword—This Document has also changed to comply with the new SAE Technical Standards Board Format. References were added as Section 2. All other section numbers have changed.

- 1. Scope**—The fuses shown are for use in motor vehicles, boats, and trailers to protect electrical wiring and equipment. This standard is for the construction shown and is not intended to restrict the design and use of other configurations and materials capable of meeting the vehicle requirements.
- 2. References**—There are no referenced publications specified herein
- 3. Definition**—A fuse is a device designed to open the electric circuit when subjected to overcurrents that could damage the circuit or equipment. This action is to be nonreversible, and the fuse is intended to be replaced after the circuit malfunction has been corrected.
- 4. Materials**—The fuses shown shall have clear glass tubes. End caps shall be of brass, copper, or other copper alloy and shall be plated with nickel or other suitable material having satisfactory electrical and corrosion protective properties.
- 5. Construction**—Fuse caps shall be tightly attached to the glass tube and the ends shall be square and free of solder externally. Fuse elements shall be clearly visible through the glass tube. Fuses shall be capable of being passed through a tubular gage having a length as long as the fuse and having a uniform inside diameter of 0.258–0.259 in (6.55–6.60 mm). Preferred and other fuse dimensions are shown in Figure 1.

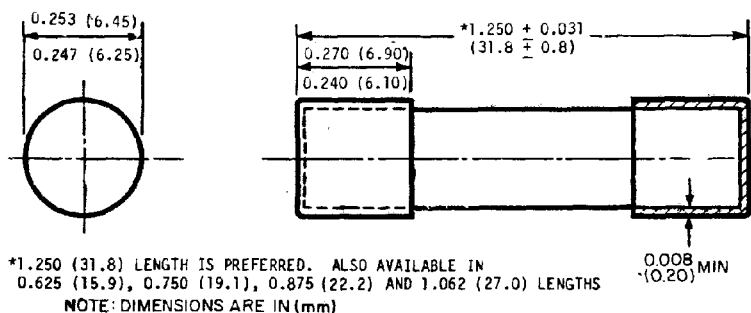


FIGURE 1—FUSE DIMENSIONS

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6. Application

6.1 General—This standard applies to fuses of all lengths. However, the fuse derating chart shown in Figure 2 applies specifically to the preferred length of 1.250 in (31.8 mm). The fuse manufacturer should be contacted for recommendations on other available lengths. (See Figure 1.)

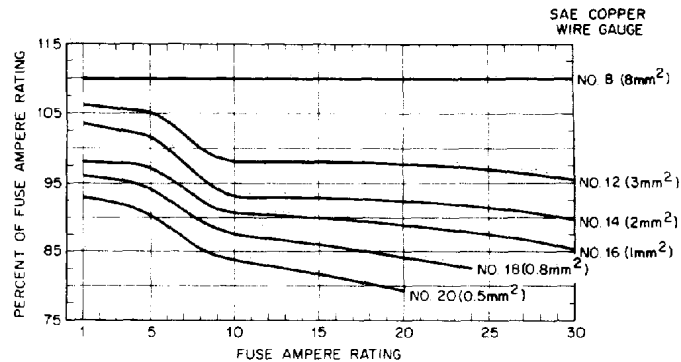


FIGURE 2—FUSE DERATING FOR VARIOUS WIRE SIZES
(1.250 IN (31.8 MM) LENGTH)

6.2 Ampere Rating—This standard covers ampere ratings up to and including 30 A. Preferred ampere ratings are shown in Table 1. These ratings are determined at 75°F (24°C) ambient temperature. Approximate capacity change with respect to temperature is shown in Figure 3 for all length fuses. The use of fuses in ambient temperatures beyond the limits shown is not recommended without thorough testing experimentally in the vehicle. It is further recommended that fuses not be loaded to 100% of the adjusted capacity, according to ambient temperature, due to electrical system variances. See Figure 2 for additional deratings when fuses are used on cable gage sizes other than the test gage wire.

TABLE 1—FUSE COLOR CODES

Ampere Rating	Color	Ampere Rating	Color
1	Dark green	9	Orange
2	Gray	10	Red
2-1/2	Purple	14	Black
3	Violet	15	Light blue
4	Pink	20	Yellow
5	Tan	25	White
6	Gold	30	Light green
7-1/2	Brown		