

# Housings for High Heat Load Applications

## Product Information

High power lasers, often found in medical and industrial applications, require high power input and generate high levels of heat. Hence, materials used in the encapsulation of the laser must be capable of carrying high current levels to support the functioning of the laser and have high thermal conductivity so as to dissipate heat quickly.

SCHOTT offers a variety of laser packages, including a 9-mm TOP header for high power laser applications. This stamped TO header, which is available in two standard designs, is a straightforward packaging option. Customers can, thereby, utilize accessible manufacturing infrastructure to achieve economies of scale.

## Advantages

- **High thermal conductivity:** Copper, which possesses high thermal conductivity to support rapid heat dissipation, is used as the base material.
- **High current carrying capacity:** With the use of readily available material such as CF25, the TO header can carry high current levels.
- **Customizable:** In addition to two standard stamped designs, SCHOTT can create modified TO headers or packages with similar properties.
- **Hermeticity, if required:** In cases whereby hermeticity is requested, headers can be modified with CRS base and copper heatsink.

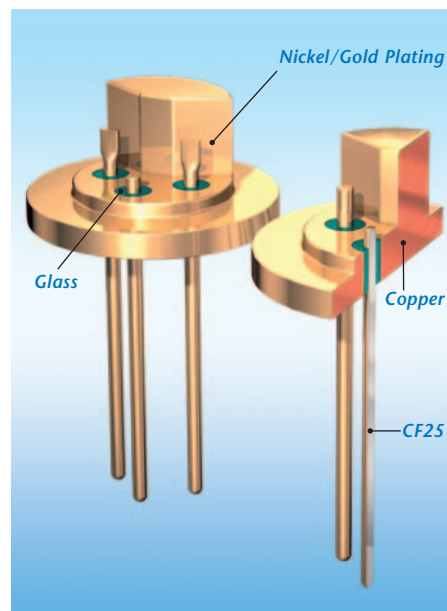
## Preliminary Specifications

TO header size	9 mm (standard) Customizable
Thermal conductivity	401 W · m <sup>-1</sup> · K <sup>-1</sup> (Copper)
Current carrying capacity	4A @ 0.45mm (0.018") pin diameter
Pin material	CF25
Eyelet material	Copper
Finish	Electroless Ni Electroless Ni + Electrolytic Au

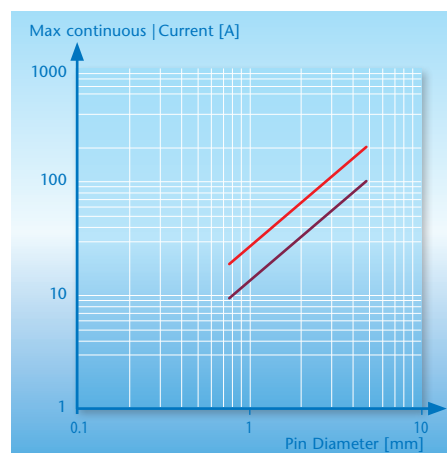
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Two standard, stamped 9-mm TO header designs from SCHOTT for high heat load applications



Current carrying capacity of  
— CF25 and — Copper