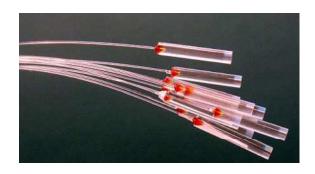


# Thermally Expanded Core (TEC) Fiber

# **Applications:**

Power coupling
High power connectors
Fiber-optic Sensors



#### **Features:**

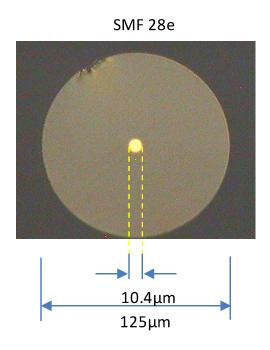
Low Excess Loss

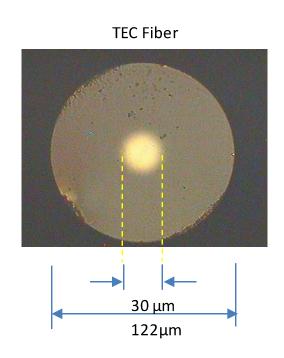
Durable for High Power

Large Expanded Region Available in various MFD sizes AR Coating option available ROHS Compliant Available in bare fiber and glass capillary pigtail

#### **Description:**

Go!Foton's Single Thermally Expanded Core (TEC) Fiber has an enlarged mode field diameter (MFD) obtained by heating a conventional singlemode fiber locally at high temperature (~1300 to 1450 deg C). The core expansion rate depends on the heating temperature and heating time. TEC fiber has the feature that although thermal diffusion changes the refractive index profile, the normal frequency does not change and hence the singlemode condition is maintained through the process.





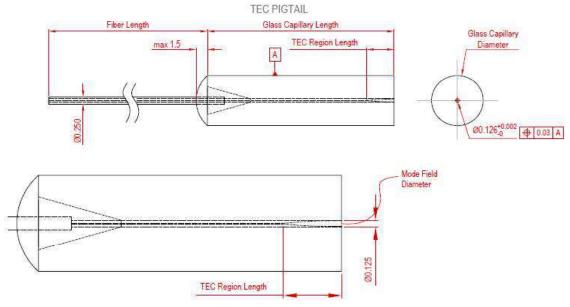


### **Specifications:**

	20 um	30 um	40um
Initial Mode Field Diameter (um)		10.4*	
Final Mode Field Diameter (um)	$20 \pm 2$	$30 \pm 2$	40 ± 5
Cladding Diameter (um)		122~125	
TEC Region Length (mm)		$1.5 \pm 0.5$	
Polishing Length (mm)		≤0.5	
Excess Loss (dB)	≤0.10	≤0.10	≤0.15

<sup>\*</sup>Specification for initial mode field diamter is based on commercially availbale fibers and is dependent on the fiber structure.

# **Mechanical Drawing:**



\*Polishing Length is the allowable length of the TEC Region that can be reduced without affecting the expected MFD of the TEC Fiber

