



## Applications Note Power Combiners

### TFB Series Power Combiners – High Power Usage

As with any component used directly in a high power transmission path, it is recommended that adequate heat-sinking is provided for both housing options.

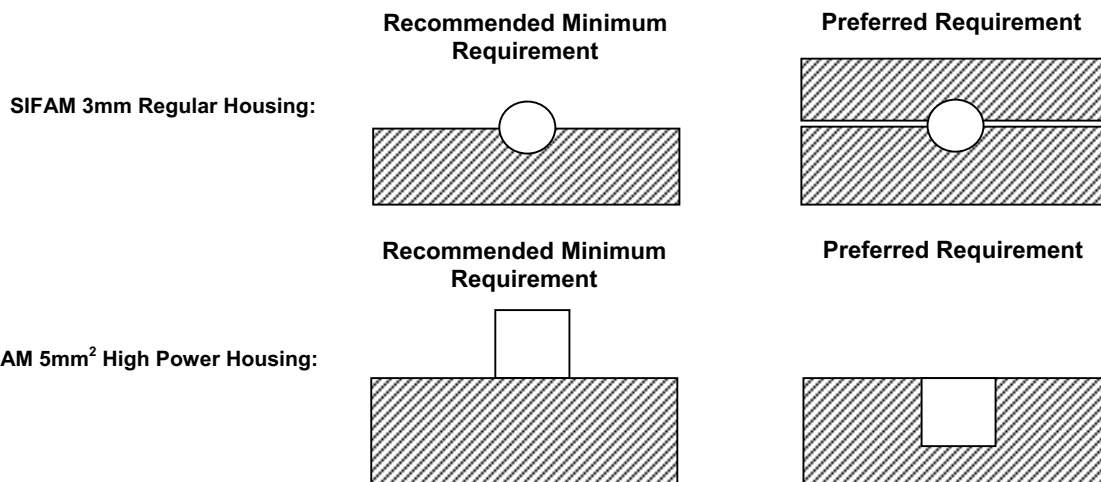
SIFAM's Regular 3mm cylindrical housing will perform well for powers of up to ~2W per input or ~15W total input power depending on specific mode-fill conditions, CW/Pulsed operation and cooling efficiency of the heatsink / component mounting surface.

For higher powers the 'High Power Housing' option is recommended since its internal design ensures maximum heat transfer to the external flat surfaces which have been optimised for good thermal contact with heatsink / cooling surfaces.

SIFAM's TFB Series Power Combiners have been proven by successfully completing a rigorous qualification program and will provide long reliable service when used within the guidelines mentioned. Operation outside of these guidelines or at extreme high powers (i.e. transmission of >>80W total input power, depending on specific mode-fill conditions, CW/Pulsed operation and cooling efficiency of the application) will invalidate SIFAM's responsibility as the supplier.

For high power experimentation / applications it is suggested that the temperature of the housing is monitored at the DCF end (the last 10mm of the housing at the single port side) and restricted to temperatures up to 75°C.

### Recommended Heat-sink Configurations



**If you require any further information including more detailed technical and qualification data about these, or any other SIFAM Fibre Optics components, please contact the SIFAM Fibre Optics Sales Team.**

