

ABSTRACT**TRANSITION EDGE SENSOR**

A transition edge sensor includes a superconducting absorber with a central absorber portion. One or more protrusions extend outward from the central absorber portion. The
5 superconducting absorber is positioned overlying a substrate material. A thermal pathway is provided between the superconducting absorber and the substrate material to allow energy absorbed by the superconducting absorber to be dissipated. One or more heat sinks are also provided. Each heat sink is positioned to overlie a corresponding protrusion of the superconducting absorber. Each heat sink also has a portion that extends beyond
10 the corresponding protrusion to define a separate thermal pathway from the heat sink to the substrate material.

Fig. 2