

METHOD AND APPARATUS FOR SHORT CIRCUIT PROTECTION
OF POWER TRANSISTOR DEVICE

ABSTRACT OF THE DISCLOSURE

5 A circuit and method for detecting and
protecting against an overcurrent condition in a power
transistor switching device, and particularly an IGBT.
The power transistor switching device has main terminals
and a control terminal, the main terminal having a normal
saturation voltage therebetween during normal conduction
10 of the power transistor device. The circuit includes a
driver providing control signals to the control terminal
of the power transistor device for switching the power
transistor device on and off, a sensing circuit coupled
to the power transistor device for sensing the saturation
15 voltage of the power transistor device, and a switching
circuit coupled to the control terminal of the power
transistor device and responsive to the sensing circuit
for removing the control signals from the control
terminal in the event the saturation voltage reaches an
20 abnormal level indicating an overcurrent condition in the
power transistor device.

