

Non intrusive component junction temperature measurement method

To perform preventive maintenance and reduce operating costs, the industrial demand for monitoring functions of equipment is increasing. Temperature monitoring can be done with thermal diodes being costly to implement or with thermocouples facing derivations over time, and both solutions are intrusive.

DESCRIPTION*

- Temperature measurement made into the driver board
- Measurement method based on the thermal sensitivity of a component intrinsic characteristic:
 - Current injection and insulation at chip terminals
 - Coupled with an acquisition and treatment system
- Accurate measurement enabling operating specifications optimization
- Real time measurement of any standard power devices



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COMPETITIVE ADVANTAGES

- Component junction temperature
- Measurement accuracy
- Non intrusive method
- Long term reliability

APPLICATIONS

- Real-time monitoring (on-line)
- Specific diagnostic (off-line)
- Ageing & damages study of power devices & packaging
- Industries:
 - Oil & drilling
 - Power generation
 - Aeronautics
 - Automotive

INTELLECTUAL PROPERTY

- Patent pending

DEVELOPMENT STAGE

- Experimental proof of concept



LABORATORY

- Statics Converters Group



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