

2SP0320 SCALE™-2 Plug-and-Play IGBT Driver



2SP0320 Series – Dual-Channel Driver
for PrimePACK™ and Equivalent IGBT Modules
with Electrical or Fiber-Optic Interfaces.

PRODUCT DESCRIPTION

The 2SP0320 is the ultimate driver platform for PrimePACK™ and equivalent IGBT modules various manufacturers. As a member of the Power Intergrations plug-and-play driver family, it satisfies the requirements for optimized electrical performance and noise immunity.

The highly integrated SCALE™-2 chipset reduces the component count by 80 % compared to conventional solutions, thus significantly increasing reliability and reducing costs.

Thanks to SCALE™-2 technology, the 2SP0320 family comprises complete and extremely compact two-channel IGBT drivers equipped with DC/DC converters, short-circuit protection, advanced active clamping and supply-voltage monitoring.

The embedded paralleling capability allows easy inverter design covering higher power ratings. Specifically adapted drivers are available for all module types. All drivers are available with electrical and fiber-optic interfaces.

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The driver contains all necessary components for optimal and safe driving of the relevant IGBT module: smallest gate resistors in order to minimize switching losses, gate clamping, active-clamping diodes (over-voltage protection at turn-off), Vce monitoring (short-circuit protection) as well as the electrical connector input X1. Moreover, it includes components for setting the turn-off trip level, the response time and the dead time between both channels in half-bridge mode. Its plug-and-play capability means that it is ready to operate immediately after mounting. The user needs invest no effort in designing or adjusting the driver to a specific application.

APPLICATIONS

- Wind-power converters
- Traction inverters
- Industrial drives
- Induction heating
- Elevators
- UPS and SMPS
- Medical (MRT, CT, X-Ray)
- Laser technology

KEY BENEFIT

Ultimate driver platform for PrimePACK™ and equivalent IGBTs with an electrical or fiber-optic interface. Component count reduced by 80 % thanks to the SCALE™-2 chipset.

KEY FEATURES

- Compact plug-and-play solution up to 1.7 kV
- Very short delay time of <120 ns
- Small jitter of +/-2 ns
- Interface for 3.3 V...15 V logic level
- Electrical or fiber-optic interfaces
- Small jitter of +/-2 ns (electr. interface)
- +15 V/-10 V gate driving
- Easy mounting directly onto the IGBT
- Embedded paralleling capability
- Supports 2-level and 3-level converter topologies
- IGBT short-circuit protection
- Advanced active clamping
- Isolated DC/DC converter
- Supply under-voltage lockout
- Safe isolation to EN50178
- UL compliant
- Superior EMC
- Reliable, long service life

