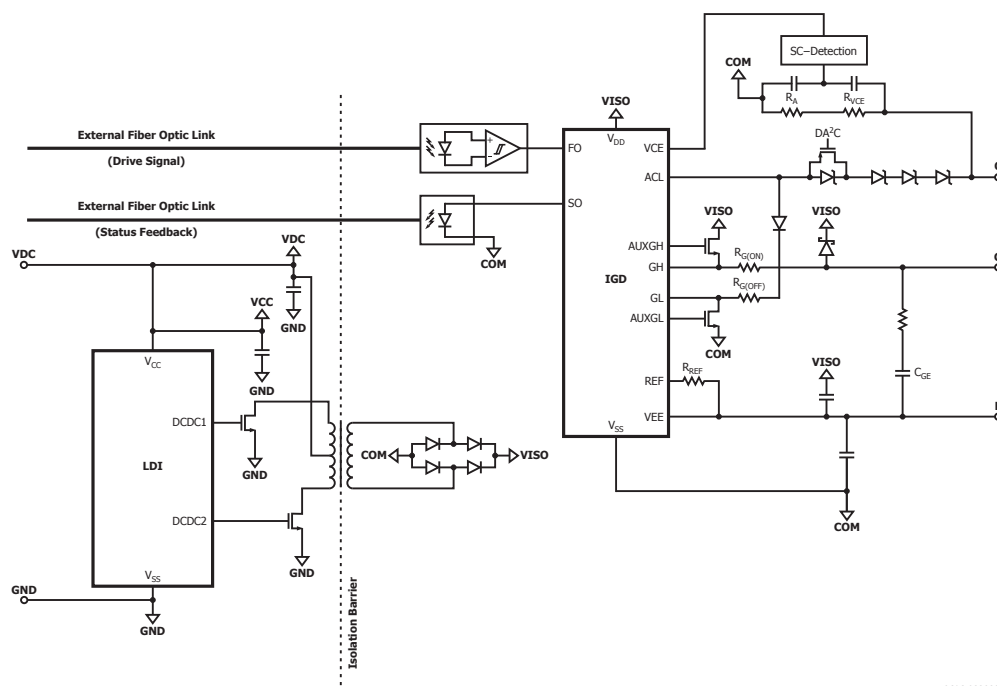


SCALE™-2 Plug-and-Play IGBT Gate Driver 1SP0351

- Single-channel plug-and-play gate driver for 4500 V Press Pack IGBT/IEGT
- Compact autonomous plug-and-play solution
- Fiberoptic interface
- +15 V / -10 V gate driving, regulated gate voltage
- IGBT/IEGT short-circuit and over-current protection
- Dynamic Advanced Active Clamping
- Built-in isolated and regulated DC-DC converter with DC-DC overload monitoring

Application Circuit Diagram (1SP0351V2xx)



Applications

- High-voltage DC transmission systems
- Railway main inverters
- STATCOM
- Medium-voltage drives

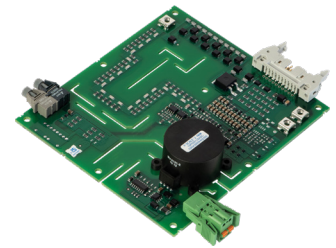
Certifications

- Creepage and clearance according to IEC 60077-1

Product Details

Parameter	Min	Typical	Max	Unit
Nominal supply voltage	0	15	16	V
Supply current @ $f_{IN} = 0$ Hz		TBD		mA
Supply current, full load		nn		mA
Output power		3		W
Gate voltage		+15 / -10		V
Peak output current (gate current)	-50		+50	A
Switching frequency (f_s ¹)			2	kHz
Test voltage	10200			V_{RMS}
Creepage distance on PCB primary-secondary	45			mm
Clearance distance primary-secondary	25			mm
Test voltage	10200			$V_{ISO,PS}$
Partial discharge extinction voltage (3.3 kV versions)	5400			V_{PEAK}
Operating temperature	-40		+85	°C

¹ Maximum switching frequency depends on the IGBT gate charge. See data sheet for actual value of specific driver.



1SP0351 single-channel
plug-and-play gate driver

Design Support

Available Products 1SP0351 products list (www.power.com/1SP0351)

Application Note AN-1301: Do's and don'ts with SCALE-2 gate drivers (www.power.com/an-1301)