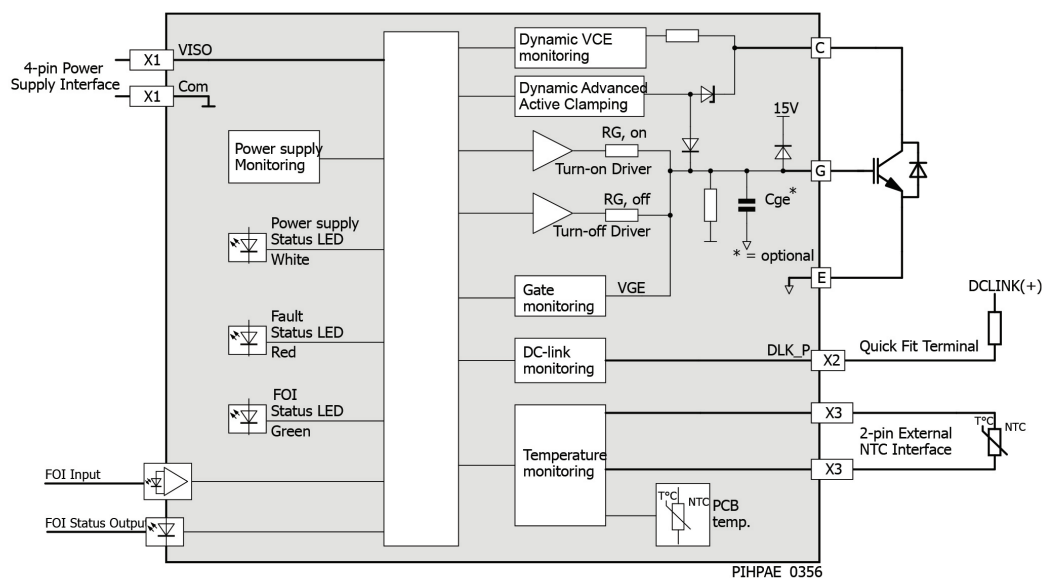


Programmable Plug-and-Play IGBT Gate Driver 1SP0635V2A0D

- Fiberoptic interface with serial bitstream output protocol
- Telemetry features (temperature and voltage measurements)
- Status monitoring/self diagnosis features (gate voltage, gate status, fiber optics status)
- Overvoltage protection by Dynamic Advanced Active Clamping
- Isolated external DC/DC power supply ISO6125R-33

Single-Channel Plug-and-Play Gate Driver for Blocking Voltages up to 3300 V



Applications

- Railway main inverters
- High-voltage DC transmission systems
- Medium-voltage drives
- Railroad power supplies
- Flexible AC transmission systems
- Industrial motor drives

Certifications

- Creepage and clearance according to IEC 60077-1
- UL compliant

Product Details

Parameter	Min	Typical	Max	Unit
Nominal supply voltage		15		V
Supply current 1SP0635x2Mx @ $f_{IN} = 0$ Hz		120		mA
Per additional 1SP0635D2Sx @ $f_{IN} = 0$ Hz		35		mA
Supply current, full load 1SP0635x2Mx			400	mA
Output power (1SP0635V2Mx or 1SP0635SMx)			3	W
Output power (1SP0635D2Sx)			2.6	W
Gate voltage		+15 / -10		V
Peak output current (gate current)	-35		+35	A
Switching frequency (f_s^{-1})	0		30	kHz
Duty cycle	0		100	%
Creepage distance primary-secondary	21			mm
Clearance distance primary-secondary	21			mm
Dielectric test voltage (3.3 kV versions)	6000			V _{RMS}
Partial discharge extinction voltage (3.3 kV versions)	3630			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.



Companion Chip:
DC/DC power supply ISO6125R-33

Design Support

Available Products 1SP0635 products list (www.power.com/1SP0635)

<https://www.power.com/products/scale-2-plug-and-play-drivers/1sp0630/iso6125r-33>