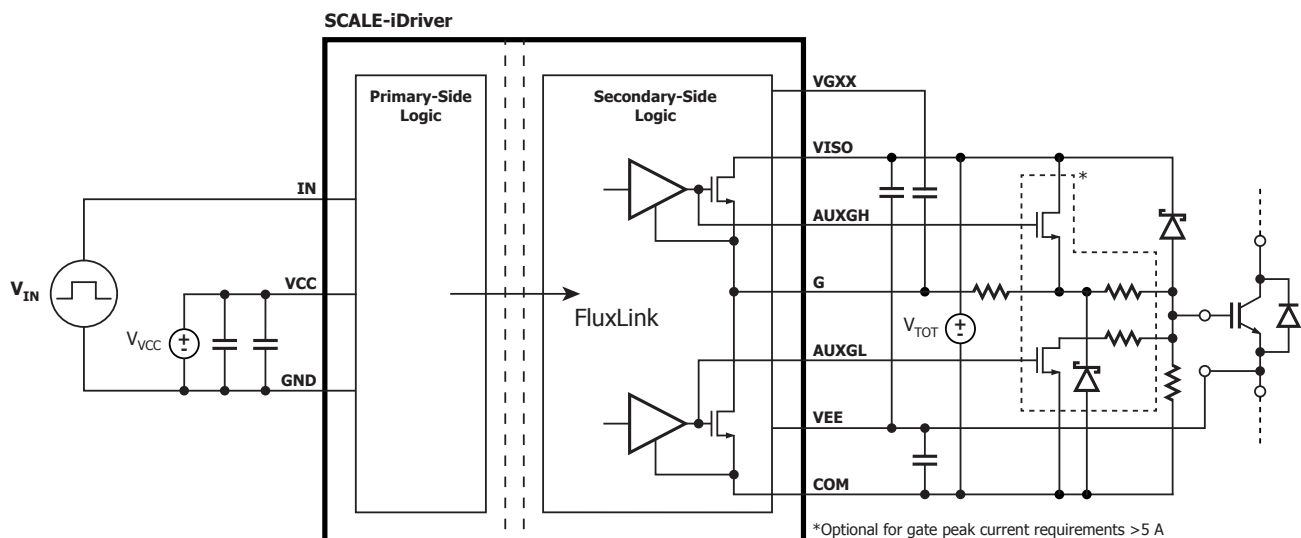


SCALE-iDriver™ Gate Driver SID1102K

- Drives IGBT modules up to 1200 V and current from 50 A to 3600 A
- For 600 V / 650 V / 1200 V IGBT and SiC MOSFET switches
- Scalable external N-channel MOSFET booster for up to 60 A peak gate current
- FluxLink™ technology provides safe isolation between primary and secondary side
- Rail-to-rail stabilized output voltage
- eSOP™ package with 9.5 mm creepage and clearance



Single-Channel 5 A IGBT and SiC MOSFET Gate Driver



PI-8527-111317

Applications

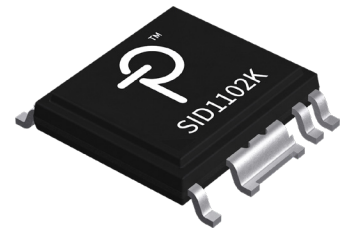
- Uninterruptible power supplies (UPS)
- VFD (Variable Frequency Drives), AC drives
- Photovoltaic inverters
- Commercial air conditioners
- EV charger (supply and station)
- Welding

Certifications

- Reinforced isolation according to VDE 0884-10 and IEC 60747-10
- UL 1577 certified: E358471 complies with IEC 61000-4-8 and IEC 61000-4-9 standards

Product Details

Parameter	Min	Typical	Max	Unit
Primary-side supply voltage (V_{VCC})	4.75	5	5.25	V
Secondary-side total supply voltage (V_{TOT})	22	25	28	V
Maximum gate sourcing peak current (I_{GH})		3.3		A
Maximum gate sinking peak current (I_{GL})		5		A
Operating switching frequency (f_s)		75		kHz
Propagation delay jitter			± 5	ns
Turn-on propagation delay time ($t_{P(LH)}$)		262		ns
Turn-off propagation delay time ($t_{P(HL)}$)		262		ns
Minimum turn-on and -off PWM pulses extension ($t_{GE(MIN)}$)			650	ns
Creepage distance primary-secondary (L2)	9.5			mm
Clearance distance primary-secondary (L1)	9.5			mm
Tracking resistance (Comparative Tracking Index - CTI)		600		
Maximum package dissipated power (P_s)			1.79	W
100% production withstanding isolation voltage test (V_{TEST})	6			kV _{RMS}
100% production partial discharge test ($V_{PD(M)}$)	2652			V _{PEAK}



Design Support

- Data Sheet** SCALE-iDriver SID1102K data sheet (www.power.com/sid1102k-data-sheet)
- Reference Designs** Gate driver reference designs (www.power.com/solutions/designs/gate-drivers)