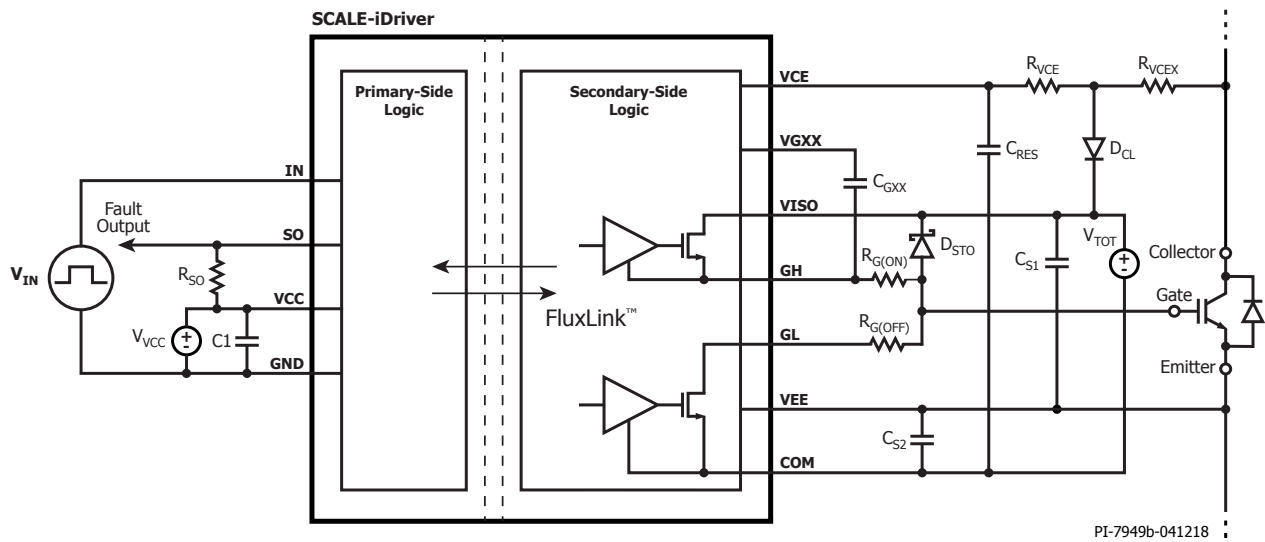


1200 V SCALE-iDriver™ Gate Driver SID1182K

- Increased reliability, smaller size, lower system cost
- eSOP™ package: CTI 600, 9.5 mm creepage and clearance
- ASSD function controls di/dt in desaturation
- VEE regulator avoids parasitic turn on
- Split outputs only require a unipolar power supply for secondary side



Galvanically-reinforced Isolated Single-channel Gate Driver IC



Applications

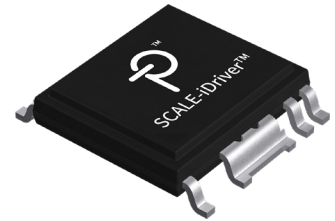
- Industrial motor drives (GPD, VFD, AC drives and servo drives)
- Uninterruptible power supplies
- Photovoltaic inverters
- Industrial (welding, health care, plasma, inductive heating)
- EV chargers (supply and station)

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})		7.3		A
Maximum gate sinking peak current (I_{GL})		8		A
Operating switching frequency (f_s)	0	20	75	kHz
Propagation delay jitter			± 5	ns
Turn-on propagation delay time ($t_{P(LH)}$)		253		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}



SID1182K 1200 V gate driver

Design Support

Data Sheet SID1182K gate driver data sheet
(www.power.com/SID1182K-data-sheet)

Video An introduction to SCALE-iDriver
(www.power.com/scale-idriver-video)

Application Note Controlling SiC MOSFET power switches with SCALE-2 and SCALE-2+ gate driver cores and SCALE-iDriver gate driver ICs (AN-1601) (www.power.com/an-1601)