

Product Part Number	Peak Output Current (A)	Semiconductor Current (A)
SID1132K	2.5	≤ 100
SID1152K	5.0	≤ 200
SID1182K	8.0	≤ 450

Increase power with external booster > 1000 A I_c

- Industry highest 8.0 A peak output current**
 - Drives switches with up to 450 A collector current
 - Higher current with external boost
- Up to 250 kHz switching frequency**
 - Low propagation delay < 260 nS
- Greatly reduced component count**
 - Operate from a single-rail secondary supply
 - SCALE™ rail-to-rail stabilized output drive
 - DSAT (short circuit) sensing via resistor or diode networks
 - 2 layer PCBs reduce board complexity and cost
- Comprehensive protection features**
 - Short circuit protection using $V_{CE(SAT)}$ monitoring
 - Advanced soft shutdown (ASSD)
 - Primary and secondary under voltage lock-out
 - Primary side fault notification

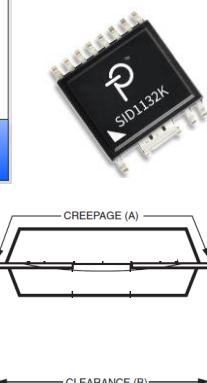
Key features

Supports 600-1200 V IGBT, MOSFET and SiC

SiC will require additional bias circuitry – contact Applications for more information

Gate Driver Technologies Supported

Benefit	PI	Competitor
High voltage, reliable Isolation	✓	?
Extended Creepage and clearance	✓	?
Single Secondary winding	✓	?
Integrated Rail-to-rail voltage regulation	✓	?
Resistive short-circuit detection	✓	?
Reduced stress in short-circuit (ASSD)	✓	?
Separate source and sink pins	✓	?
High Driver current without boost	✓	?
Reduced BOM allows 2 sided PCB	✓	?
High Level of Integrations eBOM Cost	✓	?



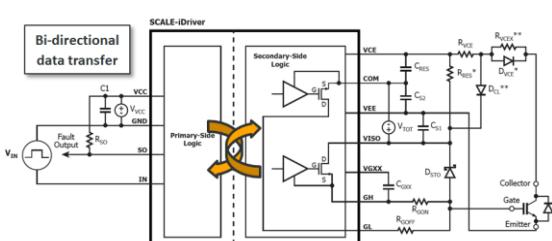
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Creepage (mm)	8.3	8.2	8	9.5																																																																																																								
CTI	175	175	600	600																																																																																																								
Implied I_{PEAK}^*	585	581	1125	1330																																																																																																								
Implied V_{RMS}/V_{DC}^*	415	412	798	948																																																																																																								

* Assumes Pollution degree 2, Overvoltage category II, PCB Material group II

K Package is Clear winner over Competition

FluxLink™ provides isolation without optocouplers

Magneto-inductive coupling
Reinforced isolation, safe operation at high temperatures
Meets VDE UL and CSA requirements
100 % production testing - HIPOT and partial discharge



	RDHP-1608	RDHP-1526
Class of semiconductor (Current rating)	$I_c < 300$ A	$I_c > 300$ A
$V_{DC(MAX)}$	900 V	800 V
Maximum Gate peak-current	8 A	15 A
Short-circuit detection	Resistor network Optional diode network	Resistor network
Components	Minimum component count	Additional booster stage
Overvoltage protection	None	Basic active-clamping (BAC)

Fluxlink™

Reference Design Boards

Unipolar secondary side voltage

- SCALE-iDriver IC creates stabilized +15V
- Also generates negative gate output voltage

Undervoltage Lockout

- Primary side
- Secondary side

VCC Input

- 4.75 – 5.25 V

PWM input

- 5V CMOS logic

Failure notification

- Open collector

SCALE™ technology

Integrated rail-to-rail output with N-channel transistors

$V_{CE(sat)}$ Desaturation Monitoring

- Can use resistor chain or diodes
- Short circuit protection Advanced Soft Shut Down function (ASSD)

High Power Switch

- IGBT
- MOSFET
- SiC

