



HVIGBTs & HV Diodes for Medium Voltage Drives



Overview

Powerex HVIGBTs and HV diodes feature highly insulating housings that offer enhanced protection by means of greater creepage and strike clearance distance for many demanding applications like medium voltage drives and auxiliary traction applications.

Applications

- Diodes for 18-24 pulse front end rectifiers in 10.2 KV isolation
- High voltage power supplies
- Medium voltage drives
- Motor drives
- Traction

HVIGBT Product Advantages

- -40 to 150°C extended temperature range
- 100% dynamic tested
- 100% partial discharge tested
- Advanced Mitsubishi R-Series chip technology
- Aluminum nitride (AlN) ceramic substrate for low thermal impedance
- Complementary line-up in expanding current ranges to Mitsubishi HVIGBT power modules
- Rugged SWSOA and RRSOA

HV Diode Product Advantages

- Aluminum nitride (AlN) ceramic substrate for low thermal impedance
- General purpose and fast recovery diodes available
- Hybrids (SiC JBS free wheeling diode) available upon request
- Industry standard packages allow common bus work to complementary high isolation diodes
- No additional insulation components required

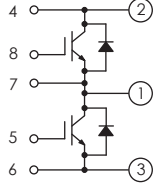


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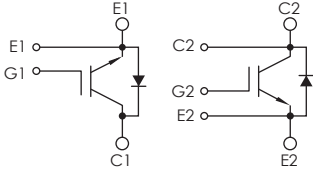
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Package Configuration

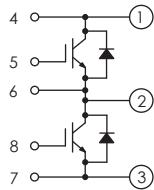
QID3320004, QID4515004



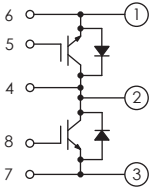
QID3340001, QID3350001



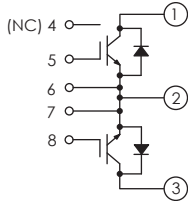
QID3320002, QID3330001, QID4515002, QID4520002, QID6508001



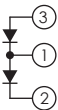
QIF4515002



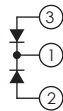
QIC6508001



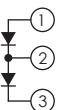
QRD3310001, QRD3320004



QRC3310002



QRD4518001, QRD6516001



3.3KV, 4.5KV, and 6.5KV Class IGBT & Diode Line-up Table

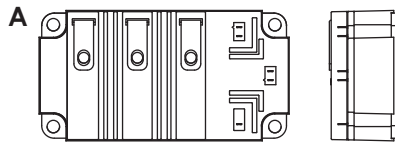
Part Number	Package Type	Baseplate*	Package Configuration	V _{CES} (KV)	I _C (A) / I _F (A)	V _{isol} (KV)
3.3 KV Modules						
QID3320002	C	Cu	Dual IGBT	3.3	200	7.7
QID3320004**	A	Cu	Dual IGBT	3.3	200	6
QID3330001	C	Cu	Dual IGBT	3.3	300	9
QID3340001	B	AlSiC	Dual IGBT	3.3	400	6
QID3350001	B	AlSiC	Dual IGBT	3.3	500	6
QRD3310001	D	Cu	Dual Diode	3.3	100	6
QRC3310002	D	Cu	Dual Diode	3.3	100	6
QRD3320004**	A	Cu	Common Cathode Dual Diode	3.3	200	6
4.5 KV Modules						
QID4515002	C	Cu	Dual IGBT	4.5	150	9
QID4515004	A	Cu	Dual IGBT	4.5	150	6
QIF4515002	C	Cu	Dual IGBT Common Collector	4.5	150	9
QID4520002	C	Cu	Dual IGBT	4.5	200	9
QRD4518001	C	Cu	Dual Diode	4.5	180	10.2
6.5 KV Modules						
QIC6508001	C	Cu	Dual IGBT Common Emitter	6.5	85	9
QID6508001	C	Cu	Dual IGBT	6.5	85	Available to 9 / 10.2
QRD6516001	C	Cu	Dual Diode	6.5	160	10.2

*Where Cu baseplate is listed, an AlSiC baseplate can be substituted where required for demanding applications.

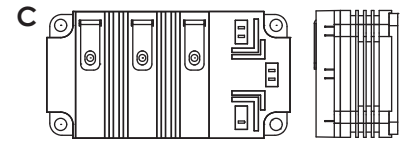
**UL Recognized (E78240)

NOTE: Single switch, dual, dual diode and common emitter configurations available upon request.

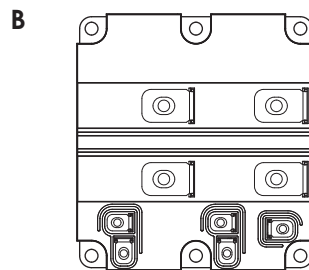
Pkg. Type



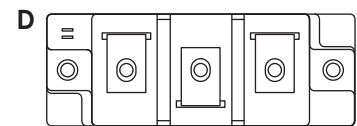
140mm x 73mm x 38mm



140mm x 73mm x 48mm



140mm x 130mm x 38mm



94mm x 34mm x 30mm

For more information:

visit: <http://www.pwr.com/summary/SiC-Modules>

email: globalsales@pwr.com

phone: 724-925-7272, Option 3 (Applications Engineering Assistance)

