Press Release

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IXYS UK Westcode introduces a new 4.5kV very high di/dt fast recovery diode (HP Sonic FRD) for snubber applications.

IXYS UK Westcode Ltd. announces a new addition to its range of 4.5kV fast recovery diodes (HP-sonic FRDs) with very high di/dt capability and soft recovery characteristics. The new diode has a nominal operating current of 460A and is optimised to be used in conjunction with IXYS UK's extensive range of press-pack IGBTs.

The new diodes incorporate IXYS UKs most advanced die bonding technology, where the silicon die is bonded to a metallic disc using a low temperature sinter technology, replacing older designs based on floating silicon. The new bonded die design offers a diode with improved thermal stability and very robust mechanical properties. The silicon is optimised with advanced processing to give unrivalled di/dt capability to more than 2kA/µs, while retaining a soft recovery characteristic and low switching losses.

The diodes are packaged in fully hermetic 26mm thick ceramic packages with copper electrodes and are compatible for series clamping in the same stack as IXYS UK's range of very high current press-pack IGBTs. The 460A device has a 43mm die and is packaged in a 38mm electrode package with overall diameter of 60mm.

The new HP sonic FRD is optimised for use with IXYS UKs range of 4.5kV press pack IGBTs; as both anti-parallel and neutral point clamp diodes (for multi-level converters) with IXYS UK's press-pack IGBT types T0240NB45E, T0340VB45G and T0510VB45A. The new diode is also suitable to be used as a snubber diode with IXYS UKs larger press-pack IGBTs such as T1600GB45G, T1800GB45A, T2400GB45E and the recently launched T2960BB45E. As well as applications using the press-pack IGBT the new diode is also suitable to be used as a snubber or clamp diode with other fast switching devices which require a diode with di/dt greater than 500A/µs. Part number designation for the new diode is E0460QC45E.

Typical applications for this device include: Utilities and HVDC applications like, flexible AC transition systems, HVDC transition, Statcoms, VSC SVC etc.; medium voltage AC drives for harsh environments and ultra-high power, such as mining, marine and off shore, gas and oil installations; Renewable energy for wind turbines, hydro generation, wave-generation and solar.

For more information, please contact

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