Fast 1200V IGBTs Reduce Switching and Conduction Losses

International Rectifier, a world leader in power management technology, announced the introduction of a family of reliable, efficient 1200 V Insulated Gate Bipolar Transistors (IGBTs) for induction heating, uninterruptible power supplies (UPS) solar and welding applications.

The new family of ultra-fast 1200 V IGBTs utilizes thin wafer Field-Stop Trench technology that significantly reduces switching and conduction losses to deliver higher power density and greater efficiency at higher frequencies. These devices are further optimized for applications that do not require short-circuit capability such as UPS, solar inverters, and welding, and complement IR's products with 10 microsecond short circuit capability for motor drive applications.

"Featuring a range of performance benefits, IR's new family of ultra-fast 1200 V Trench IGBTs offer higher system efficiency, while cutting switching losses and delivering higher switching frequencies reduces heat sink size and magnetic component count to lower overall system cost," said Llewellyn Vaughan-Edmunds, IGBT product marketing manager, IR's Energy Saving Products Business Unit.

Covering a broad current range from 20 – 50 A as packaged devices and up to 150 A for die products, key performance benefits include wide square reverse bias safe operating area (RBSOA), positive VCE(on) temperature coefficient, and low VCE(on) to reduce power dissipation and achieve higher power density. In addition, devices are available with or without an internal ultra-fast soft recovery diode. Die products are also available with solderable front metal (SFM) for improved thermal performance, reliability and efficiency.

Specifications	Package	I(nom)	Vceon	Rt
Part Number				
IRG7PH35U	**TO247**	**20**	**1.9**	**0**
IRG7PH35UD	**TO247 - Copack**			
IRG7PH42U	**TO247**	**30**	**1.7**	**0**
IRG7PH42UD	**TO247 - Copack**			
IRG7PH46U	**TO247**	**40**	**1.7**	**0**
IRG7PH46UD	**TO247 - Copack**			
IRG7PH50U	**TO247**	**50**	**1.7**	**0**
IRG7PSH50UD	**Sup.TO247 - Copack**			

Datasheets and an IGBT online selection tool are available on the International Rectifier website at www.irf.com [1]. The selection tool can be accessed directly at http://mypower.irf.com/IGBT/ [2]. For information about die products, please contact diesales@irf.com [3].

Source URL (retrieved on *03/31/2015 - 8:54pm*):
http://www.ecnmag.com/product-releases/2011/10/fast-1200v-igbts-reduce-switching-and-conduction-losses?qt-most_popular=0

Links:
[1] http://www.irf.com/

[2] http://mypower.irf.com/IGBT/
[3] mailto:diesales@irf.com