Insulated gate bipolar transistors intended for appliance and light industrial motor drive applications

International Rectifier announced the expansion of its family of Insulated Gate Bipolar Transistors (IGBTs) with the introduction of the IRGR4045DPbF [1] and IRGS4045DPbF [2]. The new 600V Trench ultrafast IGBTs offer improved performance and higher efficiency for appliance and light industrial motor drive applications including washers [3] and refrigerators [4].

The IRGR4045DPbF and IRGS4045DPbF utilize IR's thin wafer Field-Stop Trench technology that significantly reduces switching and conduction losses to deliver higher power density and greater efficiency at higher frequencies. Co-packaged with a diode and available in DPAK and D2Pak packages, the new IGBTs feature a nominal current of 6A and a minimum short circuit rating of ≥ 5µs.

The new devices also offer low VCE(on) to reduce power dissipation and achieve higher power density, and positive VCE(on) temperature coefficient for easy paralleling. The IRGR4045DPbF and IRGS4045DPbF are suitable for a wide range of switching frequencies, optimized up to 20kHz.

"The IRGR4045DPbF and IRGS4045DPbF expand IR's extensive portfolio of IGBTs and offer a highly efficient and reliable solution for high performance appliance and light industrial applications," said Llewellyn Vaughan-Edmunds, IGBT Product Marketing Manager, IR's Energy Saving Products Business Unit.

Offered as both die and packaged devices other key features of the IRGR4045DPbF and IRGS4045DPbF include optimized square reverse bias safe operating area (RBSOA), maximum junction temperature of 175 °C and low EMI for improved reliability.

Specifications

Part Number	Package	BV	Ic(100C)	Vceon	Rth(j-c)	Typ
IRGR4045DPBF	DPAK	600	6	1.7	1.9 °C/W	Ultr
IRGS4045DPBF	D2PAK	600	6	1.7	1.9 °C/W	Ultr

Datasheets and an IGBT online selection tool are available on the International Rectifier website at www.irf.com [5]. The selection tool can be accessed directly at mypower.irf.com/IGBT. For information about die products, please contact diesales@irf.com [6].

Availability and pricing

Pricing for the devices begins at US $1.31 for the IRGR4045DPBF and US $1.10 for the IRGS4045DPBF each in 10,000-unit quantities. Production orders are available immediately. The devices are RoHS compliant and prices are subject to change.

Source URL (retrieved on *11/27/2014 - 3:09pm*):
http://www.ecnmag.com/product-releases/2012/10/insulated-gate-bipolar-transistors-intended-appliance-and-light-industrial-motor-drive-applications?qt-video_of_the_day=0&qt-recent_content=0&qt-most_popular=0

Links:
[1] http://www.irf.com/product-info/datasheets/data/irgr4045dpbf.pdf
[2] http://www.irf.com/product-info/datasheets/data/irgs4045dpbf.pdf
[3] http://www.irf.com/product-info/appliance/washer.html
[4] http://www.irf.com/product-info/appliance/refrig.html
[5] http://www.irf.com/
[6] mailto:diesales@irf.com