

## **Insulated-gate bipolar transistors optimized for uninterruptible power supplies, solar, induction heating, industrial motor, and welding applications**



International Rectifier (IR) announced the expansion of its family of 600V insulated-gate bipolar transistors (IGBTs) with the introduction of the IRGP4640D, IRGP4650D and IRGP4660D. The new rugged, reliable devices are optimized for uninterruptible power supplies (UPS), solar, induction heating, industrial motor and welding applications.

The 40A IRGP4640D, 50A IRGP4650D and 60A IRGP4660D IGBTs utilize trench thin wafer technology to offer lower conduction and switching losses. Co-packaged with a soft recovery low  $Q_{rr}$  diode, the new devices are optimized for ultra-fast switching (8-30kHz) with 5 $\mu$ s short circuit rating, and feature low  $V_{ce(on)}$  and positive  $V_{ce(on)}$  temperature coefficient for easy paralleling.

# Insulated-gate bipolar transistors optimized for uninterruptible power supply

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The new IGBTs are suitable for a wide range of switching frequencies and deliver higher system efficiency and rugged transient performance. They are offered in an industry standard TO-247 package, with a maximum junction temperature of 175 °C and low EMI for improved reliability.

## Specifications

Part Number	Package	BV	Ic(100C)	Vceon	Rth(j-c)	Type
IRGP4640DPBF	TO-247AC	600	40A	1.6V	0.60 °C/W	Ultrafast
IRGP4640D-EPBF	TO-247AD					
IRGP4650DPBF	TO-247AC	600	50A	1.6V	0.56 °C/W	Ultrafast
IRGP4650D-EPBF	TO-247AD					
IRGP4660DPBF	TO-247AC	600	60A	1.6V	0.45 °C/W	Ultrafast
IRGP4660D-EPBF	TO-247AD					

Datasheets and an IGBT online selection tool are available on the International Rectifier website at [www.irf.com](http://www.irf.com) [1]. The selection tool can be accessed directly at [mypower.irf.com/IGBT](http://mypower.irf.com/IGBT) [2].

## Availability and pricing

Pricing for the IRGP4640DPbF begins at US \$2.15 each in 10,000-unit quantities. Production orders are available immediately. The devices are RoHS compliant and prices are subject to change.

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[http://www.ecnmag.com/product-releases/2013/02/insulated-gate-bipolar-transistor-s-optimized-uninterruptible-power-supplies-solar-induction-heating-industrial-motor-and-welding-applications?qt-video\\_of\\_the\\_day=0](http://www.ecnmag.com/product-releases/2013/02/insulated-gate-bipolar-transistor-s-optimized-uninterruptible-power-supplies-solar-induction-heating-industrial-motor-and-welding-applications?qt-video_of_the_day=0)

## Links:

[1] <http://www.irf.com>

[2] <http://www.ecnmag.com/mypower.irf.com/IGBT>