IGBTs deliver higher power density and increased efficiency for motor drive and UPS applications

International Rectifier introduced a family of rugged 1200V ultra-fast insulated-gate bipolar transistors (IGBTs) optimized for industrial motor drive and UPS systems.

The new devices leverage IR's field stop trench ultra-thin wafer technology that delivers lower conduction and switching losses. Co-packaged with a soft recovery low Qrr diode and featuring a 10us minimum short circuit time rating, the devices are optimized for rugged industrial applications.

The packaged devices cover a broad current range from 10 – 50A. Other key performance benefits include Tjmax of 150°C, positive VCE(on) temperature coefficient for easy paralleling and low VCE(on) to reduce power dissipation and achieve higher power density. Die products are also available.

Specifications

Packaged

Part Number	Package	VCES	IC (nom)	Vceon	Tsc (min)

IRG7PH30K10D	TO-247AC	1200 V	10 A	2.0 V	10us
IRG7PH30K10D-E	TO247AD long lead	1200 V	10 A	2.0 V	10us
IRG7PH37K10D	TO-247AC	1200 V	15 A	1.9 V	10us
IRG7PH37K10D-E	TO247AD long lead	1200 V	15 A	1.9 V	10us
IRG7PH44K10D	TO-247AC	1200 V	25 A	1.9 V	10us
IRG7PH44K10D-E	TO247AD long lead	1200 V	25 A	1.9 V	10us
IRG7PH50K10D	TO-247AC	1200 V	40 A	1.9 V	10us
IRG7PH50KD-E	TO247AD long lead	1200 V	40 A	1.9 V	10us
IRG7PSH54K10D	Super TO-247	1200 V	50 A	1.9 V	10us

Die

Part Number	**VCES**	**IC (nom)**	**Vceon**	**Tsc (min)**
IRG7CH30K10B	1200 V	9 A	2.0 V	10us
IRG7CH37K10B	1200 V	15 A	1.9 V	10us
IRG7CH44K10B	1200 V	25 A	1.9 V	10us
IRG7CH50K10B	1200 V	35 A	1.9 V	10us
IRG7CH54K10B0-R	1200 V	50 A	1.9 V	10us
IRG7CH73K10B-R	1200 V	75 A	1.9 V	10us
IRG7CH75K10B-R	1200 V	100 A	1.9 V	10us
IRG7CH81K10B-R	1200 V	150 A	1.9 V	10us

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

mypower.irf.com/IGBT [2]. For information about die products, please contact diesales@irf.com [3].

Availability and pricing
Pricing for the IRG7PH37K10D begins at US $3.85 each respectively 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/2013/06/igbts-deliver-higher-power-density-and-increased-efficiency-motor-drive-and-ups-applications?qt-most_popular=0

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