

HEXFET Power MOSFETs
FullPak
N-Channel

International
IR Rectifier

New Product

FullPak Fully-isolated HEXFETs

International Rectifier is proud to introduce its FullPak line of fully-isolated power MOSFETs. Available in popular-sized package outlines, these devices are designed to provide ease of use, lower costs of assembly, and high reliability.

FullPak HEXFETs are fully-isolated versions of the popular TO-220 and TO-247 ("TO-3P") packages. The well-known benefits of HEXFET power MOSFETs include voltage control, fast switching, temperature stability, ease of paralleling, low on-state resistance, high transconductance, superior dv/dt and avalanche ruggedness, and a broad range of voltages and ratings. In addition, these devices provide the designer with a cost-saving alternative in situations where electrical isolation is required.

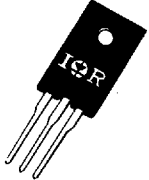
FullPak HEXFETs are excellent for use in a wide array of commercial applications in consumer, automotive, telecommunications, computer and industrial circuits (switching power supplies, amplifiers, and high-energy pulse circuits).

If you have an application where your circuit enclosure and/or heatsinks must be grounded (or your internal circuitry must be isolated from the heatsink/enclosure), then *the FullPak is for you*. Until now, semiconductors were insulated from grounded heatsinks with insulating washers and nylon screws. Improper installation of insulating hardware caused failures which resulted in poor reliability which in turn led to higher manufacturing and servicing costs.

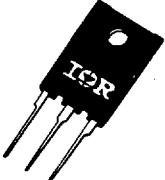
FullPak HEXFETs allow you to mount directly to grounded metal work, eliminating the need for insulating hardware and without a significant change in thermal characteristics. The convenient TO-220 and TO-3P size packages provide the advantage for existing designs and equipment to be retrofitted without modification! The FullPak also provides 2000 Vdc isolation (1500Vac, 60Hz) while contributing only about 12pF (typ.) from drain to heatsink.

See the tables below for the FullPak to fit your needs!

Isolated TO-220

| Part Number | V _{DS} Drain Source Voltage (Volts) | R _{DS(on)} On-State Resistance (Ohms) | I _D Continuous Drain Current 25°C Case (Amps) | I _{DM} Pulse Drain Current (Amps) | P _D Max Power Dissipation (Watts) | Case Outline Number (2) | Notes | Case Style |
|-------------------------------|--|--|--|--|--|-------------------------|-------|--|
| IRFIZ24 IRFIZ34 IRFIZ44 | 60 | 0.10 0.05 0.028 | 14 20 30 | 56 80 120 | 37 38 48 | H-9 | (1) | ISO-TO-220 SIMILAR to TO-220AB  |
| IRFI530 IRFI540 | 100 | 0.16 0.077 | 9.7 17 | 39 68 | 39 40 | | | |
| IRFI630 IRFI640 | 200 | 0.40 0.18 | 6.3 10.5 | 25 42 | 32 40 | | | |
| IRFI634 IRFI644 | 250 | 0.45 0.28 | 5.6 7.9 | 22 32 | 32 40 | | | |
| IRFI730 IRFI740 | 400 | 1.0 0.55 | 4.0 6.0 | 16 24 | 32 40 | | | |
| IRFI820 IRFI830 IRFI840 | 500 | 3.0 1.5 0.85 | 2.1 3.1 4.6 | 8.4 12 18 | 30 32 40 | | | |

Isolated TO-247

| Part Number | V _{DS} Drain Source Voltage (Volts) | R _{DS(on)} On-State Resistance (Ohms) | I _D Continuous Drain Current 25°C Case (Amps) | I _{DM} Pulse Drain Current (Amps) | P _D Max Power Dissipation (Watts) | Case Outline Number (2) | Notes | Case Style |
|----------------------------------|--|--|--|--|--|-------------------------|-------|---|
| IRFIP044 IRFIP054 | 60 | 0.028 0.014 | 48 62 | 192 248 | 100 110 | H-10 | (1) | ISO-TO-3P SIMILAR to TO-247AC  |
| IRFIP140 IRFIP150 | 100 | 0.077 0.055 | 23 41 | 92 164 | 83 110 | | | |
| IRFIP240 IRFIP250 | 200 | 0.18 0.085 | 15 23 | 60 92 | 83 96 | | | |
| IRFIP244 IRFIP254 | 250 | 0.28 0.14 | 12 18 | 48 72 | 83 96 | | | |
| IRFIP340 IRFIP350 | 400 | 0.55 0.30 | 8.0 12 | 32 50 | 83 96 | | | |
| IRFIP440 IRFIP448 IRFIP450 | 500 | 0.85 0.60 0.40 | 6.4 7.9 10 | 26 32 40 | 83 89 96 | | | |

(1) For lead formed options see rear of section (2) For case outline drawing see rear of section