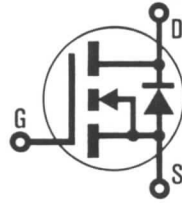


HEXFET® TRANSISTORS IRFF110

**N-CHANNEL
 POWER MOSFETs
 TO-39 PACKAGE**



**IRFF111
 IRFF112
 IRFF113**

100 Volt, 0.60 Ohm HEXFET®

Features:

- Fast Switching
- Low Drive Current
- Ease of Paralleling
- No Second Breakdown
- Excellent Temperature Stability

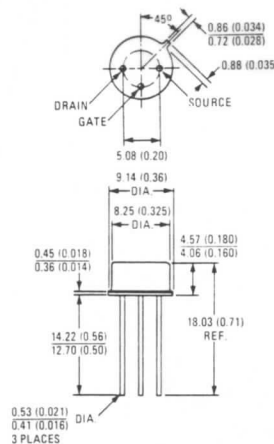
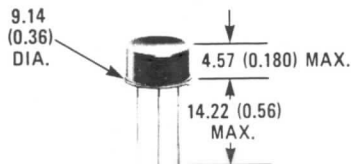
The HEXFET transistors also feature all of the well established advantages of MOSFETs such as voltage control, freedom from second breakdown, very fast switching, ease of paralleling, and temperature stability of the electrical parameters.

They are well suited for applications such as switching power supplies, motor controls, inverters, choppers, audio amplifiers, and high energy pulse circuits.

Product Summary

| Part Number | V _{DS} | R _{DS(on)} | I _D |
|-------------|-----------------|---------------------|----------------|
| IRFF110 | 100V | 0.6Ω | 3.5A |
| IRFF111 | 60V | 0.6Ω | 3.5A |
| IRFF112 | 100V | 0.8Ω | 3.0A |
| IRFF113 | 60V | 0.8Ω | 3.0A |

CASE STYLE AND DIMENSIONS



Conforms to JEDEC Outline TO-205AF (TO-39)
 Dimensions in Millimeters and (Inches)



NJ Semi-Conductors reserves the right to change test conditions, parameter limits and package dimensions without notice. Information furnished by NJ Semi-Conductors is believed to be both accurate and reliable at the time of going to press. However, NJ Semi-Conductors assumes no responsibility for any errors or omissions discovered in its use. NJ Semi-Conductors encourages customers to verify that datasheets are current before placing orders.

IRFF110, IRFF111, IRFF112, IRFF113 Devices

Source-Drain Diode Ratings and Characteristics

| | | | | | | | |
|----------|---|---------|--|-----|-----|---------------|---|
| I_S | Continuous Source Current (Body Diode) | IRFF110 | — | — | 3.5 | A | Modified MOSFET symbol showing the integral reverse P-N junction rectifier. |
| | | IRFF111 | — | — | 3.0 | A | |
| I_{SM} | Pulse Source Current (Body Diode) ③ | IRFF110 | — | — | 14 | A | |
| | | IRFF111 | — | — | 12 | A | |
| V_{SD} | Diode Forward Voltage ② | IRFF110 | — | — | 2.5 | V | $T_C = 25^\circ\text{C}, I_S = 3.5\text{A}, V_{GS} = 0\text{V}$ |
| | | IRFF111 | — | — | 2.0 | V | $T_C = 25^\circ\text{C}, I_S = 3.0\text{A}, V_{GS} = 0\text{V}$ |
| t_{rr} | Reverse Recovery Time | ALL | — | 200 | — | ns | $T_J = 150^\circ\text{C}, I_F = 3.5\text{A}, dI_F/dt = 100\text{A}/\mu\text{s}$ |
| Q_{RR} | Reverse Recovered Charge | ALL | — | 1.0 | — | μC | $T_J = 150^\circ\text{C}, I_F = 3.5\text{A}, dI_F/dt = 100\text{A}/\mu\text{s}$ |
| t_{on} | Forward Turn-on Time | ALL | Intrinsic turn-on time is negligible. Turn-on speed is substantially controlled by $L_S + L_D$. | | | | |



① $T_J = 25^\circ\text{C}$ to 150°C .

② Pulse Test: Pulse width $\leq 300\mu\text{s}$, Duty Cycle $\leq 2\%$.

③ Repetitive Rating: Pulse width limited
by max. junction temperature.

See Transient Thermal Impedance Curve (Fig. 5).