## Description

### JMP N-channel Enhancement Mode Power MOSFET

**Features**

- 650V, 10A
  $R_{DS(ON)}$ < 0.95 # $V_{GS}$ = 10V
- Fast Switching
- Improved dv/dt Capability

**Applications**

- Load Switch
- PWM Application
- Power Management

RoHS

TO-220FP-3L Top View

### Package Marking and Ordering Information

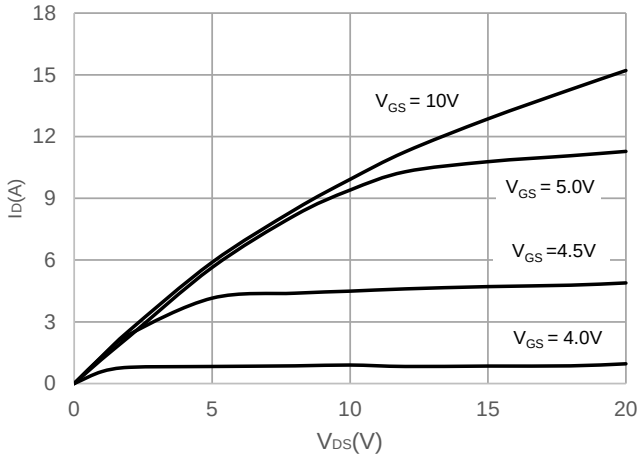
| Device Marking | Device | Outline | Package | TUBE (pcs) | Inner Box (pcs) | Per Carton (pcs) |
|---|---|---|---|---|---|---|
| JMPF10N65BJ | JMPF10N65BJ | TUBE | TO-220FP-3L | 50 | 1000 | 5000 |

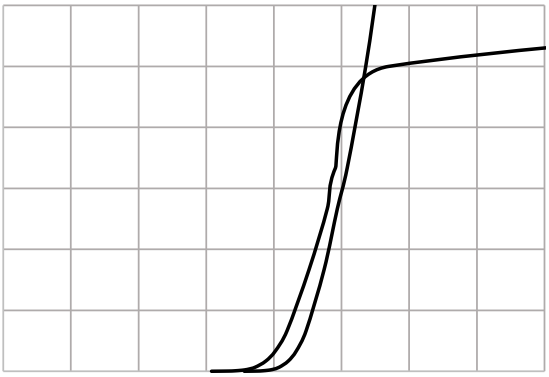
### Absolute Maximum Ratings (@ $T_C$ = 25°C unless otherwise specified)

| Symbol | Parameter | | Value | Units |
|---|---|---|---|---|
| $V_{DS}$ | Drain-to-Source Voltage | | 650 | V |
| $V_{GS}$ | Gate-to-Source Voltage | | ±30 | V |
| $I_D$ | Continuous Drain Current | $T_C$ = 25°C | 10 | A |
| | | $T_C$ = 100°C | 6 | |
| $I_{DM}$ | Pulsed Drain Current (1) | | 40 | A |
| $E_{AS}$ | Single Pulsed Avalanche Energy (2) | | 405 | mJ |
| $P_D$ | Power Dissipation | $T_C$ = 25°C | 29 | W |
| $R_{\theta JA}$ | Thermal Resistance, Junction to Ambient (3) | | 55 | °C/W |
| $R_{\theta JC}$ | Thermal Resistance, Junction to Case | | 4.3 | |
| $T_J$, $T_{STG}$ | Junction & Storage Temperature Range | | -55 to 150 | °C |

## Typical Performance Characteristics

Figure 1: Output Characteristics



## Test Circuit

Figure 1: Gate Charge Test Circuit & Waveform

Figure 2: Resistive Switching Test Circuit & Waveform

Figure 3: Unclamped Inductive Switching Test Circuit& Waveform

Figure 4: Diode Recovery Test Circuit & Waveform