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

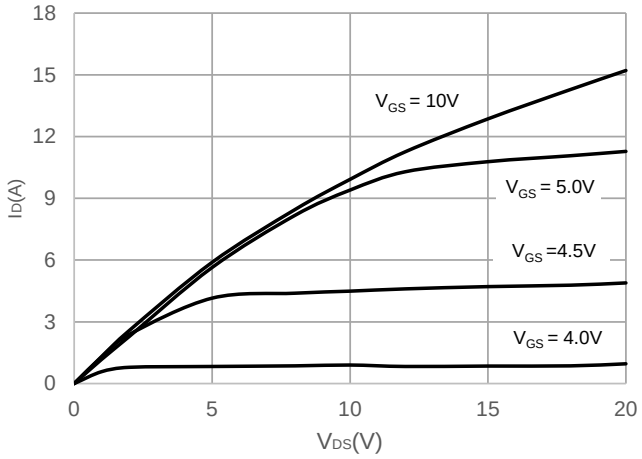
Device Marking	Device	Outline	Package	TUBE (pcs)	Inner Box (pcs)	Per Carton (pcs)
JMPF10N65BJ	JMPF10N65BJ	TUBE	TO-220FP-3L	50	1000	5000

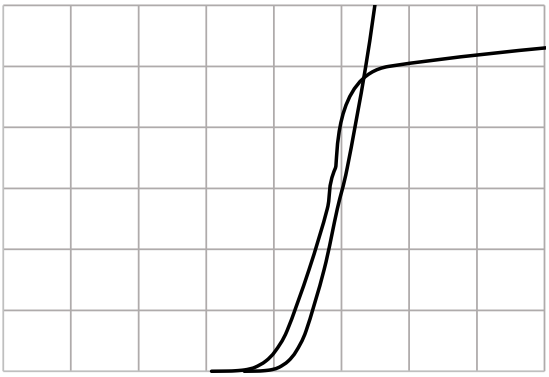
Absolute Maximum Ratings (@ T_C = 25°C unless otherwise specified)

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





Typical Performance 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