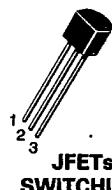
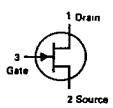


**MAXIMUM RATINGS**

Rating	Symbol	Value	Unit
Drain-Source Voltage	V <sub>DS</sub>	±25	Vdc
Drain-Gate Voltage	V <sub>DG</sub>	25	Vdc
Gate-Source Voltage	V <sub>GS</sub>	25	Vdc
Drain Current	I <sub>D</sub>	100	mAdc
Forward Gate Current	I <sub>G(f)</sub>	10	mAdc
Total Device Dissipation @ T <sub>A</sub> = 25°C Derate above 25°C	P <sub>D</sub>	360 2.88	mW mW/°C
Storage Channel Temperature Range	T <sub>stg</sub>	-65 to +150	°C

**BF246, A, B, C**CASE 29-04, STYLE 22  
TO-92 (TO-226AA)**BF247, A, B, C**CASE 29-04, STYLE 5  
TO-92 (TO-226AA)

N-CHANNEL - DEPLETION

Refer to MPF4391 for graphs.

**ELECTRICAL CHARACTERISTICS (T<sub>A</sub> = 25°C unless otherwise noted.)**

Characteristic	Symbol	Min	Typ	Max	Unit
<b>OFF CHARACTERISTICS</b>					
Gate-Source Breakdown Voltage (I <sub>G</sub> = 1 μA, V <sub>DS</sub> = 0)	V(BR)GSS	25	—	—	V
Gate-Source (V <sub>DS</sub> = 15 V, I <sub>D</sub> = 200 μA) BF246, BF247 BF246A, BF247A BF246B, BF247B BF246C, BF247C	V <sub>GS</sub>	-0.5 -1.5 -3 -5.5	— — — —	-14 -4 -7 -12	V
Gate-Source Cutoff Voltage (V <sub>DS</sub> = 15 V, I <sub>D</sub> = 10 nA)	V <sub>GS(off)</sub>	0.6	—	14.5	V
Gate Cutoff Current (V <sub>GS</sub> = 15 V, V <sub>DS</sub> = 0)	I <sub>GSS</sub>	—	—	5	nA

**ON CHARACTERISTICS**

Zero-Gate Voltage Drain Current (V <sub>DS</sub> = 15 V, V <sub>GS</sub> = 0) BF246, BF247 BF246A, BF247A BF246B, BF247B BF246C, BF247C	I <sub>DSS</sub>	30 30 60 110		250 80 140 250	mA
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**SMALL-SIGNAL CHARACTERISTICS**

Forward Transfer Admittance (V <sub>DS</sub> = 15 V, I <sub>D</sub> = 10 mA, f = 1 kHz)	Y <sub>fs</sub>	8	23		mmhos
Reverse Transfer Capacitance (V <sub>DS</sub> = 15 V, I <sub>D</sub> = 10 mA, f = 1 kHz)	C <sub>rss</sub>		3.3		pF
Input Capacitance (V <sub>DS</sub> = 15 V, I <sub>D</sub> = 10 mA, f = 1 MHz)	C <sub>in</sub>		6		pF
Output Capacitance (V <sub>DS</sub> = 15 V, I <sub>D</sub> = 10 mA, f = 1 MHz)	C <sub>out</sub>		5		pF
Cutoff Frequency (V <sub>DS</sub> = 15 V, V <sub>GS</sub> = 0)	F(Y <sub>fs</sub> )		450		MHz

MOTOROLA SMALL-SIGNAL TRANSISTORS, FETs AND DIODES