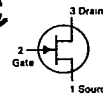
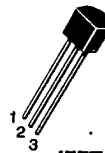
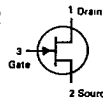


BF246, A, B, CCASE 29-04, STYLE 22
TO-92 (TO-226AA)**BF247, A, B, C**CASE 29-04, STYLE 5
TO-92 (TO-226AA)**JFETs
SWITCHING**

N-CHANNEL - DEPLETION

Refer to MPF4391 for graphs.

MAXIMUM RATINGS

Rating	Symbol	Value	Unit
Drain-Source Voltage	V_{DS}	± 25	Vdc
Drain-Gate Voltage	V_{DG}	25	Vdc
Gate-Source Voltage	V_{GS}	25	Vdc
Drain Current	I_D	100	mA dc
Forward Gate Current	$I_{G(f)}$	10	mA dc
Total Device Dissipation @ $T_A = 25^\circ\text{C}$ Derate above 25°C	P_D	360 2.88	mW mW/ $^\circ\text{C}$
Storage Channel Temperature Range	T_{stg}	-65 to +150	$^\circ\text{C}$

ELECTRICAL CHARACTERISTICS ($T_A = 25^\circ\text{C}$ unless otherwise noted.)

Characteristic	Symbol	Min	Typ	Max	Unit
OFF CHARACTERISTICS					
Gate-Source Breakdown Voltage ($I_G = 1\ \mu\text{A}$, $V_{DS} = 0$)	$V_{(BR)GSS}$	25	—	—	V
Gate-Source ($V_{DS} = 15\ \text{V}$, $I_D = 200\ \mu\text{A}$)	V_{GS}	-0.5 -1.5 -3 -5.5	— — — —	-14 -4 -7 -12	V
Gate-Source Cutoff Voltage ($V_{DS} = 15\ \text{V}$, $I_D = 10\ \text{nA}$)	$V_{GS(off)}$	0.6	—	14.5	V
Gate Cutoff Current ($V_{GS} = 15\ \text{V}$, $V_{DS} = 0$)	I_{GSS}	—	—	5	nA
ON CHARACTERISTICS					
Zero-Gate Voltage Drain Current ($V_{DS} = 15\ \text{V}$, $V_{GS} = 0$)	I_{DSS}	30 30 60 110	— — — —	250 80 140 250	mA

SMALL-SIGNAL CHARACTERISTICS

Forward Transfer Admittance ($V_{DS} = 15\ \text{V}$, $I_D = 10\ \text{mA}$, $f = 1\ \text{kHz}$)	$ Y_{fs} $	8	23	—	mmhos
Reverse Transfer Capacitance ($V_{DS} = 15\ \text{V}$, $I_D = 10\ \text{mA}$, $f = 1\ \text{kHz}$)	C_{rss}	—	3.3	—	pF
Input Capacitance ($V_{DS} = 15\ \text{V}$, $I_D = 10\ \text{mA}$, $f = 1\ \text{MHz}$)	C_{in}	—	6	—	pF
Output Capacitance ($V_{DS} = 15\ \text{V}$, $I_D = 10\ \text{mA}$, $f = 1\ \text{MHz}$)	C_{out}	—	5	—	pF
Cutoff Frequency ($V_{DS} = 15\ \text{V}$, $V_{GS} = 0$)	$F(Y_{fs})$	—	450	—	MHz

MOTOROLA SMALL-SIGNAL TRANSISTORS, FETs AND DIODES