BF246,A,B,C

CASE 29-02, STYLE 22
TO-92 (TO-226AA)

BF247,A,B,C

CASE 29-02, STYLE 5
TO-92 (TO-226AA)

JFET
SWITCHING

N-CHANNEL — DEPLETION

Refer to MPF4391 for graphs.

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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	mAdc
Forward Gate Current	$I_{G(f)}$	10	mAdc
Total Device Dissipation @ T_A = 25°C Derate above 25°C	P_D	360 2.88	mW mW/°C
Storage Channel Temperature Range	T_{stg}	−65 to +150	°C

ELECTRICAL CHARACTERISTICS (T_A = 25°C unless otherwise noted.)

Characteristic		Symbol	Min	Typ	Max	Unit
OFF CHARACTERISTICS						
Gate-Source Breakdown Voltage (I_G = 1 μA, V_{DS} = 0)		$V_{(BR)GSS}$	25	—	—	V
Gate-Source (V_{DS} = 15 V, I_D = 200 μA)	BF246, BF247	V_{GS}	0.5	—	14	V
	BF246A, BF247A		1.5	—	4	
	BF246B, BF247B		3	—	7	
	BF246C, BF247C		5.5	—	12	
Gate-Source Cutoff Voltage (V_{DS} = 15 V, I_D = 10 nA)		$V_{GS(off)}$	0.6	—	14.5	V
Gate Cutoff Current (V_{GS} = 15 V, V_{DS} = 0)		I_{GSS}	—	—	5	nA
ON CHARACTERISTICS						
Zero-Gate Voltage Drain Current (V_{DS} = 15 V, V_{GS} = 0)	BF246, BF247	I_{DSS}	30		250	mA
	BF246A, BF247A		30		80	
	BF246B, BF247B		60		140	
	BF246C, BF247C		110		250	
SMALL-SIGNAL CHARACTERISTICS						
Forward Transfer Admittance (V_{DS} = 15 V, I_D = 10 mA, f = 1 kHz)		$\|Y_{fs}\|$	8	23		mmhos
Reverse Transfer Capacitance (V_{DS} = 15 V, I_D = 10 mA, f = 1 kHz)		C_{rss}		3.3		pF
Input Capacitance (V_{DS} = 15 V, I_D = 10 mA, f = 1 MHz)		C_{in}		6		pF
Output Capacitance (V_{DS} = 15 V, I_D = 10 mA, f = 1 MHz)		C_{out}		5		pF
Cutoff Frequency (V_{DS} = 15 V, V_{GS} = 0)		$F_{(Yfs)}$		450		MHz