BF244,A,B,C

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

BF245,A,B,C

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JFET
VHF/UHF AMPLIFIER

N-CHANNEL — DEPLETION

Refer to 2N4416 for graphs.

MAXIMUM RATINGS

Rating	Symbol	Value	Unit
Drain-Source Voltage	V_{DS}	±30	Vdc
Drain-Gate Voltage	V_{DG}	30	Vdc
Gate-Source Voltage	V_{GS}	30	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 = 1.0 μAdc, V_{DS} = 0)		$V_{(BR)GSS}$	30	—	—	V
Gate-Source (V_{DS} = 15 Vdc, I_D = 200 μA)	BF245(1), BF244(2)	V_{GS}	0.4	—	7.5	V
	BF245A, BF244A		0.4	—	2.2	
	BF245B, BF244B		1.6	—	3.8	
	BF245C, BF244C		3.2	—	7.5	
Gate-Source Cutoff Voltage (V_{DS} = 15 Vdc, I_D = 10 nA)		$V_{GS(off)}$	0.5	—	8	V
Gate Reverse Current (V_{GS} = 20 Vdc, V_{DS} = 0)		I_{GSS}	—	—	5	nA
ON CHARACTERISTICS						
Zero-Gate Voltage Drain Current (V_{DS} = 15 Vdc, V_{GS} = 0)	BF245(1), BF244(2)	I_{DSS}	2		25	mA
	BF245A, BF244A		2		6.5	
	BF245B, BF244B		6		15	
	BF245C, BF244C		12		25	
SMALL-SIGNAL CHARACTERISTICS						
Forward Transfer Admittance (V_{DS} = 15 Vdc, V_{GS} = 0, f = 1 KHz)		$\|Y_{fs}\|$	3.0		6.5	mmhos
Output Admittance (V_{DS} = 15 Vdc, V_{GS} = 0, f = 1 KHz)		$\|Y_{os}\|$		40		μmhos
Forward Transfer Admittance (V_{DS} = 15 Vdc, V_{GS} = 0, f = 200 MHz)		$\|Y_{fs}\|$		5.6		mmhos
Reverse Transfer Admittance (V_{DS} = 15 Vdc, V_{GS} = 0, f = 200 MHz)		$\|Y_{rs}\|$		1.0		mmhos
Input Capacitance (V_{DS} = 20 Vdc, $-V_{GS}$ = 1 Vdc)		C_{iss}		3		pF
Reverse Transfer Capacitance (V_{DS} = 20 Vdc, $-V_{GS}$ = 1 Vdc, f = 1 MHz)		C_{rss}		0.7		pF
Output Capacitance (V_{DS} = 20 Vdc, $-V_{GS}$ = 1 Vdc, f = 1 MHz)		C_{oss}		0.9		pF
Noise Figure (V_{DS} = 15 Vdc, V_{GS} = 0, R_G = 1 KΩ, f = 100 MHz)		N_F		1.5		db
Cut-off Frequency(3) (V_{DS} = 15 Vdc, V_{GS} = 0)		$F_{(Yfs)}$		700		MHz

(1) On orders against the BF245, any or all subgroups might be shipped.
(2) On orders against the BF244, any or all subgroups might be shipped.
(3) The frequency at which gfs is 0.7 of its value at 1 KHz.