BC264,A,B,C,D

CASE 29-02, STYLE 23
TO-92 (TO-226AA)

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	—	—	Vdc
Gate-Source (V_{DS} = 15 Vdc)	BC264(1)	I_D = 200 μA	V_{GS}	0.4	—	—	Vdc
	BC264A	I_D = 1 mA		0.2	—	1.2	
	BC264B	I_D = 1.5 mA		0.4	—	1.4	
	BC264C	I_D = 2.5 mA		0.5	—	1.5	
	BC264D	I_D = 3.5 mA		0.6	—	1.6	
Gate-Source Cutoff Voltage (V_{DS} = 15 Vdc, I_D = 10 nA)			$V_{GS(off)}$	0.5	—	8	Vdc
Gate Reverse Current (V_{GS} = 20 Vdc, V_{DS} = 0)			I_{GSS}	—	—	10	nAdc
ON CHARACTERISTICS							
Zero-Gate-Voltage Drain Current V_{DS} = 15 V	BC264		I_{DSS}	2.0		12.0	mAdc
	BC264A			2.0		4.5	
	BC264B			3.5		6.5	
	BC264C			5.0		8.0	
	BC264D			7.0		12.0	
SMALL-SIGNAL CHARACTERISTICS							
Forward Transfer Admittance (V_{DS} = 15 Vdc, V_{GS} = 0, f = 1 KHz)	BC264		(Y_{fs})	2.5			mmhos
	BC264A			2.5			
	BC264B			3.0			
	BC264C			3.5			
	BC264D			4.0			
Output Admittance (V_{DS} = 15 Vdc, V_{GS} = 0, f = 1 KHz)			(Y_{OS})		40		μmhos
Reverse Transfer Admittance (V_{DS} = 15 Vdc, V_{GS} = 0, f = 200 MHz)			$\lvert Y_{rs} \rvert$		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 Vds, $-V_{GS}$ = 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 (2) (V_{DS} = 15 Vdc, V_{GS} = 0)			f_{gfs}		700		MHz

(1) On orders against the BC264 any or all subgroups might be shipped.
(2) The frequency at which gfs is 0.7 of its value at 1 kHz.