J300

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

JFET
HIGH FREQUENCY AMPLIFIER

N-CHANNEL — DEPLETION

MAXIMUM RATINGS

Rating	Symbol	Value	Unit
Drain-Gate Voltage	V_{DG}	−25	Vdc
Gate Current	I_G	10	mA
Total Device Dissipation @ T_A = 25°C Derate above 25°C	P_D	350 3.5	mW mW/°C
Lead Temperature (1/16" from Case for 10 Seconds)	T_L	300	°C
Junction Temperature Range	T_J	−55 to +150	°C
Storage Temperature Range	T_{stg}	−55 to +150	°C

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

Characteristic	Symbol	Min	Max	Unit
OFF CHARACTERISTICS				
Gate-Source Breakdown Voltage (I_G = −1.0 μA, V_{DS} = 0)	$V_{(BR)GSS}$	−25	—	Vdc
Gate Reverse Current (V_{GS} = −15 V, V_{DS} = 0)	I_{GSS}	—	500	pA
Gate Source Cutoff Voltage (V_{DS} = 10 V, I_D = 1.0 mA)	$V_{GS(off)}$	−1.0	−6.0	Vdc
ON CHARACTERISTICS				
Zero-Gate-Voltage Drain Current (V_{DS} = 10 V, V_{GS} = 0)	I_{DSS}	6.0	30	mA
Gate-Source Forward Voltage (V_{DS} = 0, I_G = 1.0 mA)	$V_{GS(f)}$	—	1.0	Vdc
SMALL-SIGNAL CHARACTERISTICS				
Forward Transfer Admittance (V_{DS} = 10 V, I_D = 5.0 mA, f = 1.0 kHz)	$\|y_{fs}\|$	4500	9000	μmhos
Output Admittance (V_{DS} = 10 V, I_D = 5.0 mA, f = 1.0 kHz)	$\|y_{os}\|$	—	200	μmhos
Input Capacitance (V_{DS} = 10 V, I_D = 5.0 mA, f = 1.0 MHz)	C_{iss}	—	5.5	pF
Reverse Transfer Capacitance (V_{DS} = 10 V, I_D = 5.0 mA, f = 1.0 MHz)	C_{rss}	—	1.7	pF