

2N4302
N-Channel JFET Silicon Transistor
General Purpose AF Amplifier

Absolute Maximum Ratings: ($T_A = +25^\circ\text{C}$ unless otherwise specified)

Drain-Source Voltage, V_{DS}	25V
Drain-Gate Voltage, V_{DG}	25V
Gate-Source Voltage, V_{GS}	-25V
Gate Current, I_G	10mA
Total Device Dissipation ($T_A = +25^\circ\text{C}$), P_D	300mW
Derate Above 25°C	2mW/ $^\circ\text{C}$
Operating Junction Temperature Range, T_J	-55° to $+150^\circ\text{C}$
Storage Temperature Range, T_{stg}	-55° to $+150^\circ\text{C}$
Lead Temperature (During Soldering, 1/16" from case for 10sec), T_L	$+260^\circ\text{C}$

Electrical Characteristics: ($T_A = +25^\circ\text{C}$ unless otherwise specified)

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Gate-Source Breakdown Voltage	$V_{(BR)GSS}$	$I_G = 1\mu\text{A}, V_{DS} = 0$	-25	-	-	V
Gate Reverse Current	I_{GSS}	$V_{GS} = 20\text{V}, V_{DS} = 0$	-	-	-1	nA
		$V_{GS} = 20\text{V}, V_{DS} = 0, T_A = +150^\circ\text{C}$	-	-	-1	μA
Gate-Source Cutoff Voltage	$V_{GS(off)}$	$I_D = 1\mu\text{A}, V_{DS} = 15\text{V}$	-	-	-6.5	V
Gate-Source Voltage	V_{GS}	$I_D = 50\mu\text{A}, V_{DS} = 15\text{V}$	-0.4	-	-6.0	V
Zero-Gate-Voltage Drain Current	I_{DSS}	$V_{DS} = 15\text{V}, V_{GS} = 0$	0.5	-	15	mA
Forward Transfer Admittance	$ y_{fs} $	$V_{DS} = 15\text{V}, V_{GS} = 0, f = 1\text{kHz}$	1000	-	7500	μmho



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