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**2N5462★**

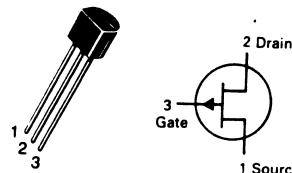
## MAXIMUM RATINGS

Rating	Symbol	Value	Unit
Drain-Gate Voltage	V <sub>DG</sub>	40	Vdc
Reverse Gate-Source Voltage	V <sub>GSR</sub>	40	Vdc
Forward Gate Current	I <sub>G(f)</sub>	10	mAdc
Total Device Dissipation @ T <sub>A</sub> = 25°C Derate above 25°C	P <sub>D</sub>	350 2.8	mW mW/°C
Junction Temperature Range	T <sub>J</sub>	-65 to +135	°C
Storage Channel Temperature Range	T <sub>stg</sub>	-65 to +150	°C

## ELECTRICAL CHARACTERISTICS (T<sub>A</sub> = 25°C unless otherwise noted.)

Characteristic	Symbol	Min	Typ	Max	Unit
<b>OFF CHARACTERISTICS</b>					
Gate-Source Breakdown Voltage (I <sub>G</sub> = 10 μAdc, V <sub>DS</sub> = 0)	V <sub>(BR)GSS</sub>	40	—	—	Vdc
Gate Reverse Current (V <sub>GS</sub> = 20 Vdc, V <sub>DS</sub> = 0) (V <sub>GS</sub> = 30 Vdc, V <sub>DS</sub> = 0) (V <sub>GS</sub> = 20 Vdc, V <sub>DS</sub> = 0, T <sub>A</sub> = 100°C) (V <sub>GS</sub> = 30 Vdc, V <sub>DS</sub> = 0, T <sub>A</sub> = 100°C)	I <sub>GSS</sub>	—	—	5.0 1.0	nAdc μAdc
Gate Source Cutoff Voltage (V <sub>DS</sub> = 15 Vdc, I <sub>D</sub> = 1.0 μAdc)	V <sub>GS(off)</sub>	0.75 1.0 1.8	—	6.0 7.5 9.0	Vdc
Gate Source Voltage (V <sub>DS</sub> = 15 Vdc, I <sub>D</sub> = 0.1 mAdc) (V <sub>DS</sub> = 15 Vdc, I <sub>D</sub> = 0.2 mAadc) (V <sub>DS</sub> = 15 Vdc, I <sub>D</sub> = 0.4 mAadc)	V <sub>GS</sub>	0.5 0.8 1.5	—	4.0 4.5 6.0	Vdc
<b>ON CHARACTERISTICS</b>					
Zero-Gate-Voltage Drain Current (V <sub>DS</sub> = 15 Vdc, V <sub>GS</sub> = 0, f = 1.0 kHz)	I <sub>DSS</sub>	-1.0 -2.0 -4.0	—	-5.0 -9.0 -16	mAadc
<b>SMALL-SIGNAL CHARACTERISTICS</b>					
Forward Transfer Admittance (V <sub>DS</sub> = 15 Vdc, V <sub>GS</sub> = 0, f = 1.0 kHz)	Y <sub>fs</sub>	1000 1500 2000	—	4000 5000 6000	μmhos
Output Admittance (V <sub>DS</sub> = 15 Vdc, V <sub>GS</sub> = 0, f = 1.0 kHz)	Y <sub>os</sub>	—	—	75	μmhos
Input Capacitance (V <sub>DS</sub> = 15 Vdc, V <sub>GS</sub> = 0, f = 1.0 MHz)	C <sub>iss</sub>	—	5.0	7.0	pF
Reverse Transfer Capacitance (V <sub>DS</sub> = 15 Vdc, V <sub>GS</sub> = 0, f = 1.0 MHz)	C <sub>rss</sub>	—	1.0	2.0	pF
<b>FUNCTIONAL CHARACTERISTICS</b>					
Noise Figure (V <sub>DS</sub> = 15 Vdc, V <sub>GS</sub> = 0, R <sub>G</sub> = 1.0 Megohm, f = 100 Hz, BW = 1.0 Hz)	NF	—	1.0	2.5	dB
Equivalent Short-Circuit Input Noise Voltage (V <sub>DS</sub> = 15 Vdc, V <sub>GS</sub> = 0, f = 100 Hz, BW = 1.0 Hz)	e <sub>n</sub>	—	60	115	nV/√Hz

## TO-92 (TO-226AA)



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