

8514019 SPRAGUE, SEMICONDS/ICS

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T-29-25

METAL-CASE JUNCTION FIELD-EFFECT TRANSISTORS

N-Channel JFETs

Switches

ELECTRICAL CHARACTERISTICS at T<sub>A</sub> = 25°C

Device Type	V <sub>(BR)GSS</sub>		I <sub>loss</sub>		V <sub>GS(on)</sub>				I <sub>DSS</sub>			C <sub>ISS</sub> <sup>1</sup>		C <sub>RSS</sub> <sup>1</sup>		f <sub>os</sub> Max. (Ω)	Process
					Limits		Conditions										
	Min. (V)	@I <sub>G</sub> (μA)	Max. (nA)	@V <sub>GS</sub> (V)	Min. (V)	Max. (V)	V <sub>DS</sub> (V)	I <sub>D</sub> (nA)	Min. (mA)	Max. (mA)	@V <sub>DS</sub> (V)	Max. (pF)	@V <sub>DS</sub> (V)	Max. (pF)	@V <sub>DS</sub> (V)		
2N3824	-50	-1.0	-0.1	-30	—	-8.0	15	1.0	—	—	—	6.0	15	3.0	-8.0 <sup>3</sup>	250	NJ32
2N3966	-30	-1.0	-0.1	-20	-4.0	-6.0	10	10	2.0	—	20	6.0	20	1.5	-7.0 <sup>3</sup>	220	NJ32
2N3970	-40	-1.0	-0.3	-20	-4.0	-10	20	1.0	50	150	20	25	20	6.0	-12 <sup>3</sup>	30	NJ132
2N3971	-40	-1.0	-0.3	-20	-2.0	-5.0	20	1.0	25	75	20	25	20	6.0	-12 <sup>3</sup>	60	NJ132
2N3972	-40	-1.0	-0.3	-20	-0.5	-3.0	20	1.0	5.0	30	20	25	20	6.0	-12 <sup>3</sup>	100	NJ132
2N4091	-40	-1.0	-0.5	-20	-5.0	-10	20	1.0	30	—	20	16	20	5.0	-20 <sup>3</sup>	30	NJ132
2N4092	-40	-1.0	-0.5	-20	-2.0	-7.0	20	1.0	15	—	20	16	20	5.0	-20 <sup>3</sup>	50	NJ132
2N4093	-40	-1.0	-0.5	-20	-1.0	-5.0	20	1.0	8.0	—	20	16	20	5.0	-20 <sup>3</sup>	80	NJ132
2N4391	-40	-1.0	-0.1	-20	-4.0	-10	20	1.0	50	150	20	16	20	5.0	-12 <sup>3</sup>	30	NJ132
2N4392	-40	-1.0	-0.1	-20	-2.0	-5.0	20	1.0	25	75	20	16	20	5.0	-7.0 <sup>3</sup>	60	NJ132
2N4393	-40	-1.0	-0.1	-20	-0.5	-3.0	20	1.0	5.0	30	20	16	20	5.0	-5.0 <sup>3</sup>	100	NJ132
2N4856	-40	-1.0	-0.25	-20	-4.0	-10	15	1.0	50	—	15	18	-10 <sup>3</sup>	8.0	-10 <sup>3</sup>	25	NJ132
2N4856A	-40	-1.0	-0.25	-20	-4.0	-10	15	1.0	50	—	15	10	-10 <sup>3</sup>	4.0	-10 <sup>3</sup>	25	NJ132
2N4857	-40	-1.0	-0.25	-20	-2.0	-6.0	15	1.0	20	100	15	18	-10 <sup>3</sup>	8.0	-10 <sup>3</sup>	40	NJ132
2N4857A	-40	-1.0	-0.25	-20	-2.0	-6.0	15	1.0	20	100	15	10	-10 <sup>3</sup>	3.5	-10 <sup>3</sup>	40	NJ132
2N4858	-40	-1.0	-0.25	-20	-0.8	-4.0	15	1.0	8.0	80	15	18	-10 <sup>3</sup>	8.0	-10 <sup>3</sup>	40	NJ132
2N4858A	-40	-1.0	-0.25	-20	-0.8	-4.0	15	1.0	8.0	80	15	10	-10 <sup>3</sup>	3.5	-10 <sup>3</sup>	60	NJ132
2N4859	-30	-1.0	-0.25	-15	-4.0	-10	15	1.0	50	—	15	18	-10 <sup>3</sup>	8.0	-10 <sup>3</sup>	25	NJ132
2N4859A	-30	-1.0	-0.25	-15	-4.0	-10	15	1.0	50	—	15	10	-10 <sup>3</sup>	4.0	-10 <sup>3</sup>	25	NJ132
2N4860	-30	-1.0	-0.25	-15	-2.0	-6.0	15	1.0	20	100	15	18	-10 <sup>3</sup>	8.0	-10 <sup>3</sup>	40	NJ132
2N4860A	-30	-1.0	-0.25	-15	-2.0	-6.0	15	1.0	20	100	15	10	-10 <sup>3</sup>	3.5	-10 <sup>3</sup>	40	NJ132
2N4861	-30	-1.0	-0.5	-15	-0.8	-4.0	15	1.0	8.0	80	15	18	-10 <sup>3</sup>	8.0	-10 <sup>3</sup>	60	NJ132
2N4861A	-30	-1.0	-0.5	-15	-0.8	-4.0	15	1.0	8.0	80	15	10	-10 <sup>3</sup>	3.5	-10 <sup>3</sup>	60	NJ132
2N5432	-25	-1.0	-0.2	-15	-4.0	-10	5.0	3.0	150	—	15	30	-10 <sup>3</sup>	15	-10 <sup>3</sup>	5.0	NJ903
2N5433	-25	-1.0	-0.2	-15	-3.0	-9.0	5.0	3.0	100	—	15	30	-10 <sup>3</sup>	15	-10 <sup>3</sup>	7.0	NJ903
2N5434	-25	-1.0	-0.2	-15	-1.0	-4.0	5.0	3.0	30	—	15	30	-10 <sup>3</sup>	15	-10 <sup>3</sup>	10	NJ903

- NOTES:  
 1) V<sub>GS</sub> = 0 V.  
 2) I<sub>D</sub> in μA.  
 3) V<sub>DS</sub> = 0 V, V<sub>GS</sub> in volts.

RF Amplifiers

ELECTRICAL CHARACTERISTICS at T<sub>A</sub> = 25°C

Device Type	V <sub>(BR)GSS</sub>		I <sub>loss</sub>		V <sub>GS(on)</sub>				I <sub>DSS</sub>			τ <sub>is</sub>			C <sub>ISS</sub> <sup>1</sup>		C <sub>RSS</sub> <sup>1</sup>		f <sub>os</sub> Max. (Ω)	Process
					Limits		Conditions													
	Min. (V)	@I <sub>G</sub> (μA)	Max. (nA)	@V <sub>GS</sub> (V)	Min. (V)	Max. (V)	V <sub>DS</sub> (V)	I <sub>D</sub> (nA)	Min. (mA)	Max. (mA)	@V <sub>DS</sub> (V)	Min. (ns)	Max. (ns)	@V <sub>DS</sub> (V)	Max. (pF)	@V <sub>DS</sub> (V)	Max. (pF)	@V <sub>DS</sub> (V)		
2N3823	-30	-1.0	-0.5	-20	—	-8.0	10	1.0	4.0	20	15	3.5	6.5	15	6.0	15	2.0	15	—	NJ32
2N4223	-30	-1.0	-0.25	-20	—	-8.0	15	1.0	3.0	18	15	3.0	7.0	15	6.0	15	2.0	15	—	NJ32
2N4224	-30	-1.0	-0.5	-20	—	-8.0	15	1.0	2.0	20	15	2.0	7.5	15	6.0	15	2.0	15	—	NJ32
2N4416	-30	-1.0	-0.1	-20	—	-6.0	15	1.0	5.0	15	15	4.5	7.5	15	4.0	15	0.8	15	—	NJ26
2N4416A	-35	-1.0	-0.1	-20	-2.5	-6.0	15	1.0	5.0	15	15	4.5	7.5	15	4.0	15	0.8	15	—	NJ26
2N5078	-30	-1.0	-0.25	-20	-0.5	-8.0	15	1.0	4.0	25	15	4.0	—	15	6.0	15	2.0	15	—	NJ26
2N5397	-25	-1.0	-0.1	-15	-1.0	-6.0	10	1.0	10	30	10	6.0	10	10 <sup>2</sup>	5.0	10 <sup>2</sup>	1.2	10 <sup>2</sup>	—	NJ26L
2N5398	-25	-1.0	-0.1	-15	-1.0	-6.0	10	1.0	5.0	40	10	5.5	10	10	5.5	10	1.3	10	—	NJ26L

- NOTES:  
 1) V<sub>GS</sub> = 0 V.  
 2) I<sub>D</sub> = 10 μA.