

N-CHANNEL JFETs



TO-92/TO-226AA

ELECTRICAL CHARACTERISTICS at $T_A = 25^\circ\text{C}$

Device Type	$V_{(BR)GSS}$		I_{GSS}		$V_{GS(off)}$		I_{DSS}			g_{fs}			C_{iss}^1		C_{rss}^1		r_{DS} Max.	Pinning 1, 2, 3		
					Limits														Conditions	
	Min.	@ I_G	Max.	@ V_{DS}	Min.	Max.	V_{DS}	I_D	Min.	Max.	@ V_{DS}	Min.	Max.	@ V_{DS}	Max.	@ V_{DS}	Max.	@ V_{DS}	(Ω)	
2N3819	-25	-1.0	-2.0	-15	—	-8.0	15	2.0	2.0	20	15	2.0	6.5	15	8.0	15	4.0	15	—	DSG‡
TP3821	-50	-1.0	-1.0	-30	—	-4.0	10	1.0	0.5	2.5	15	1.5	4.5	15	6.0	15	2.0	15	—	DSG‡
TP3822	-50	-1.0	-1.0	-30	—	-6.0	10	1.0	2.0	10	15	3.0	6.5	15	6.0	15	2.0	15	—	DSG‡
TP3823	-30	-1.0	-1.0	-20	—	-8.0	10	1.0	4.0	20	15	3.5	6.5	15	6.0	15	2.0	15	—	DSG‡
TP3824	-50	-1.0	-1.0	-30	—	-8.0	15	0.5	4.0	20	15	3.5	6.5	15	6.0	15	2.0	15	250	DSG‡
TP4091	-40	-1.0	-1.0	-20	-5.0	-10	20	1.0	30	—	20	—	—	—	16	20	5.0	-20 ³	30	DSG‡
TP4092	-40	-1.0	-1.0	-20	-2.0	-7.0	20	1.0	15	—	20	—	—	—	16	20	5.0	-20 ³	50	DSG‡
TP4093	-40	-1.0	-1.0	-20	-1.0	-5.0	20	1.0	8.0	—	20	—	—	—	16	20	5.0	-20 ³	80	DSG‡
TP4117	-40	-1.0	-0.01	-20	-0.6	-1.8	10	1.0	0.03	0.09	10	0.07	0.21	10	3.0	10	1.5	10	—	DSG‡
TP4118	-40	-1.0	-0.01	-20	-1.0	-3.0	10	1.0	0.08	0.24	10	0.08	0.25	10	3.0	10	1.5	10	—	DSG‡
TP4119	-40	-1.0	-0.01	-20	-2.0	-6.0	10	1.0	0.2	0.6	10	0.10	0.33	10	3.0	10	1.5	10	—	DSG‡
TP4220	-30	-1.0	-1.0	-15	—	-4.0	15	1.0	0.5	3.0	15	1.0	4.0	15	6.0	15	2.0	15	—	DSG‡
TP4221	-30	-1.0	-1.0	-15	—	-6.0	15	1.0	2.0	6.0	15	2.0	5.0	15	6.0	15	2.0	15	—	DSG‡
TP4222	-30	-1.0	-1.0	-15	—	-8.0	15	1.0	5.0	15	15	2.5	6.0	15	6.0	15	2.0	15	—	DSG‡
TP4223	-30	-1.0	-1.0	-20	—	-8.0	15	1.0	3.0	18	15	3.0	7.0	15	6.0	15	2.0	15	—	DSG‡
TP4224	-30	-1.0	-1.0	-20	—	-8.0	15	1.0	2.0	20	15	2.0	7.5	15	6.0	15	2.0	15	—	DSG‡
TP4391	-40	-1.0	-1.0	-20	-4.0	-10	20	1.0	50	150	20	—	—	—	16	20	5.0	-12 ³	30	DSG‡
TP4392	-40	-1.0	-1.0	-20	-2.0	-5.0	20	1.0	25	100	20	—	—	—	16	20	5.0	-7.0 ³	60	DSG‡
TP4393	-40	-1.0	-1.0	-20	-0.5	-3.0	20	1.0	5.0	30	20	—	—	—	16	20	5.0	-5.0 ³	100	DSG‡
TP4416	-30	-1.0	-1.0	-20	—	-6.0	15	1.0	5.0	15	15	4.5	7.5	15	4.5	15	1.2	15	—	DSG‡
TP4416A	-35	-1.0	-1.0	-20	-2.5	-6.0	15	1.0	5.0	15	15	4.5	7.5	15	4.5	15	1.2	15	—	DSG‡
TP4856	-40	-1.0	-1.0	-20	-4.0	-10	15	1.0	50	—	15	—	—	—	18	-10 ³	8.0	-10 ³	25	DSG‡
TP4857	-40	-1.0	-1.0	-20	-2.0	-6.0	15	1.0	20	100	15	—	—	—	18	-10 ³	8.0	-10 ³	40	DSG‡
TP4858	-40	-1.0	-1.0	-20	-0.8	-4.0	15	1.0	8.0	80	15	—	—	—	18	-10 ³	8.0	-10 ³	60	DSG‡
TP4859	-30	-1.0	-1.0	-15	-4.0	-10	15	1.0	50	—	15	—	—	—	18	-10 ³	8.0	-10 ³	25	DSG‡
TP4860	-30	-1.0	-1.0	-15	-2.0	-6.0	15	1.0	20	100	15	—	—	—	18	-10 ³	8.0	-10 ³	40	DSG‡
TP4861	-30	-1.0	-1.0	-15	-0.8	-4.0	15	1.0	8.0	80	15	—	—	—	18	-10 ³	8.0	-10 ³	60	DSG‡
TP5163	-25	-1.0	-1.0	-15	-0.4	-8.0	15	-10 ²	1.0	40	15	2.0	9.0	15	12	15	3.0	15	—	DSG‡
TP5245	-30	-1.0	-1.0	-20	-1.0	-6.0	15	1.0	5.0	15	15	4.0	—	15	4.5	15	1.5	15	—	DSG‡
TP5246	-30	-1.0	-1.0	-20	-0.5	-4.0	15	1.0	1.5	7.0	15	2.5	—	15	4.5	15	1.5	15	—	DSG‡
TP5247	-30	-1.0	-1.0	-20	-1.5	-8.0	15	1.0	8.0	24	15	4.0	—	15	4.5	15	1.5	15	—	DSG‡
TP5248	-30	-1.0	-5.0	-20	-1.0	-8.0	15	1.0	4.0	20	15	3.0	—	15	6.0	15	2.0	15	—	DSG‡
TP5358	-40	-1.0	-1.0	-20	-0.5	-3.0	15	100	0.5	1.0	15	1.0	3.0	15	6.0	15	2.0	15	—	DSG‡
TP5359	-40	-1.0	-1.0	-20	-0.8	-4.0	15	100	0.6	1.6	15	1.2	3.6	15	6.0	15	2.0	15	—	DSG‡
TP5360	-40	-1.0	-1.0	-20	-0.8	-4.0	15	100	1.5	3.0	15	1.4	4.2	15	6.0	15	2.0	15	—	DSG‡
TP5361	-40	-1.0	-1.0	-20	-1.0	-6.0	15	100	2.5	5.0	15	1.5	4.5	15	6.0	15	2.0	15	—	DSG‡
TP5362	-40	-1.0	-1.0	-20	-2.0	-7.0	15	100	4.0	8.0	15	2.0	5.5	15	6.0	15	2.0	15	—	DSG‡
TP5363	-40	-1.0	-1.0	-20	-2.5	-8.0	15	100	7.0	14	15	2.5	6.0	15	6.0	15	2.0	15	—	DSG‡
TP5364	-40	-1.0	-1.0	-20	-2.5	-8.0	15	100	9.0	18	15	2.7	6.5	15	6.0	15	2.0	15	—	DSG‡
2N5457	-25	-1.0	-1.0	-15	-0.5	-6.0	15	1.0	1.0	5.0	15	1.0	5.0	15	7.0	15	3.0	15	—	DSG‡

NOTES: † Reversed pinning (S-G-D) available on special order—add suffix letter 'R' to part number.

Continued next page...

‡ Reversed pinning (S-D-G) available on special order—add suffix letter 'R' to part number.

- 1) $V_{GS} = 0$ V. 3) $V_{DS} = 0$ V, V_{GS} in volts. 5) $I_D = 5.0$ mA. 7) $I_D = 500$ μ A.
 2) I_D in μ A. 4) $I_D = 10$ mA. 6) $I_D = 1.0$ mA. 8) $I_D = 200$ μ A.

N-CHANNEL JFETS

TO-92/TO-226A

ELECTRICAL CHARACTERISTICS continued

Device Type	V _{(BR)GSS}		I _{GSS}		V _{GS(off)}				I _{DSS}			g _{fs}			C _{iSS} ¹		C _{rss} ¹		r _{DS}	Pinning 1, 2, 3
					Limits		Conditions													
	Min. @ I _G	Max. @ V _{DS}	Min. (V)	Max. (V)	V _{DS} (V)	I _D (nA)	Min. (mA)	Max. (mA)	@ V _{DS} (V)	Min. (mS)	Max. (mS)	@ V _{DS} (V)	Max. (pF)	@ V _{DS} (V)	Max. (pF)	@ V _{DS} (V)	Max. (Ω)			
2N5458	-25	-10	-1.0	-15	-1.0	-7.0	15	10	2.0	9.0	15	1.5	5.5	15	7.0	15	3.0	15	—	DSG‡
2N5459	-25	-10	-1.0	-15	-2.0	-8.0	15	10	4.0	16	15	2.0	6.0	15	7.0	15	3.0	15	—	DSG‡
2N5484	-25	-1.0	-1.0	-20	-0.3	-3.0	15	10	1.0	5.0	15	3.0	6.0	15	5.0	15	1.2	15	—	DSG‡
2N5485	-25	-1.0	-1.0	-20	-0.5	-4.0	15	10	4.0	10	15	3.5	7.0	15	5.0	15	1.2	15	—	DSG‡
2N5486	-25	-1.0	-1.0	-20	-2.0	-6.0	15	10	8.0	20	15	4.0	8.0	15	5.0	15	1.2	15	—	DSG‡
2N5638	-30	-1.0	-1.0	-15	—	-12	15	1.0	50	—	20	—	—	—	10	-12 ³	4.0	-12 ³	30	DSG‡
2N5639	-30	-1.0	-1.0	-15	—	-8.0	15	1.0	25	—	20	—	—	—	10	-12 ³	4.0	-12 ³	60	DSG‡
2N5640	-30	-1.0	-1.0	-15	—	-6.0	15	1.0	5.0	—	20	—	—	—	10	-12 ³	4.0	-12 ³	100	DSG‡
2N5653	-30	-1.0	-1.0	-15	—	-12	15	1.0	40	—	20	—	—	—	10	-12 ³	3.5	-12 ³	50	DSG‡
2N5654	-25	-1.0	-1.0	-15	—	-8.0	15	1.0	15	—	20	—	—	—	10	-8.0 ³	3.5	-8.0 ³	100	DSG‡
TP5668	-25	-10	-1.0	-15	-0.2	-4.0	15	10	1.0	5.0	15	1.0	—	15	7.0	15	3.0	15	—	DSG‡
TP5669	-25	-10	-1.0	-15	-1.0	-6.0	15	10	4.0	10	15	1.6	—	15	7.0	15	3.0	15	—	DSG‡
TP5670	-25	-10	-1.0	-15	-2.0	-8.0	15	10	8.0	20	15	2.0	—	15	7.0	15	3.0	15	—	DSG‡
TP5949	-30	-1.0	-1.0	-15	-3.0	-7.0	15	100	12	18	15	3.0	—	15	6.0	15	2.0	15	—	DSG‡
TPS950	-30	-1.0	-1.0	-15	-2.5	-6.0	15	100	10	15	15	3.0	—	15	6.0	15	2.0	15	—	DSG‡
TP5951	-30	-1.0	-1.0	-15	-2.0	-5.0	15	100	7.0	13	15	3.0	—	15	6.0	15	2.0	15	—	DSG‡
TP5952	-30	-1.0	-1.0	-15	-1.3	-3.5	15	100	4.0	8.0	15	1.0	—	15	6.0	15	2.0	15	—	DSG‡
TP5953	-30	-1.0	-1.0	-15	-0.8	-3.0	15	100	2.5	5.0	15	1.0	—	15	6.0	15	2.0	15	—	DSG‡
BF244A	-30	1.0	-5	-20	-0.5	-8.0	15	10	2.0	6.5	15	3.0	6.5	15	—	—	—	—	—	DGS†
BF244B	-30	-1.0	-5	-20	-0.5	-8.0	15	10	6.0	15	15	3.0	6.5	15	—	—	—	—	—	DGS†
BF244C	-30	-1.0	-5	-20	-0.5	-8.0	15	10	12	25	15	3.0	6.5	15	—	—	—	—	—	DGS†
BF246A	-25	-1.0	-5	-15	-0.6	-14.5	15	10	30	80	15	—	—	—	—	—	—	—	65	DGS†
BF246B	-25	-1.0	-5	-15	-0.6	-14.5	15	10	60	140	15	—	—	—	—	—	—	—	50	DGS†
BF246C	-25	-1.0	-5	-15	-0.6	-14.5	15	10	110	250	15	—	—	—	—	—	—	—	35	DGS†
BF256A	-30	-1.0	-5	-20	-0.5	-7.5	15	10	3.0	7.0	15	4.5	—	15	4.5	15	1.2	15	—	DGS†
BF256B	-30	-1.0	-5	-20	-0.5	-7.5	15	10	6.0	13	15	4.5	—	15	4.5	15	1.2	15	—	DGS†
BF256C	-30	-1.0	-5	-20	-0.5	-7.5	15	10	11	18	15	4.5	—	15	4.5	15	1.2	15	—	DGS†
BFR30	-25	-1.0	-0.2	-10	—	-5.0	10	0.5	4.0	10	10	1.0	4.0	10 ⁶	5.0	10 ⁶	1.5	10 ⁶	—	DSG‡
BFR31	-25	-1.0	-0.2	-10	—	-2.5	10	0.5	1.0	5.0	10	1.5	4.5	10 ⁶	5.0	10 ⁶	1.5	10 ⁶	—	DSG‡
J111	-35	-1.0	-1.0	-15	-3.0	-10	5.0	1.0 ²	20	—	15	—	—	—	16	15	5	-10 ³	30	DSG‡
J112	-35	-1.0	-1.0	-15	-1.0	-5.0	5.0	1.0 ²	5.0	—	15	—	—	—	16	15	5	-10 ³	50	DSG‡
J112A	-40	-1.0	-0.2	-15	-2.0	-7.0	5.0	1.0 ²	15	—	15	—	—	—	16	15	5	-10 ³	50	DSG‡
J113	-35	-1.0	-1.0	-15	—	-3.0	5.0	1.0 ²	2.0	—	15	—	—	—	16	15	5	-10 ³	100	DSG‡
J113A	-40	-1.0	-0.2	-15	-1.0	-5.0	5.0	1.0 ²	8.0	—	15	—	—	—	16	15	5	-10 ³	80	DSG‡
J201	-40	-1.0	-0.1	-20	-0.3	-1.5	20	10	0.2	1.0	20	0.5	—	20	4.0	20	1.0	20	—	DSG
J202	-40	-1.0	-0.1	-20	-0.8	-4.0	20	10	0.9	4.5	20	1.0	—	20	4.0	20	1.0	20	—	DSG
J203	-40	-1.0	-0.1	-20	-2.0	-10	20	10	4.0	20	20	1.5	—	20	6.0	20	1.2	20	—	DSG
J230	-40	-1.0	-0.2	-30	-0.5	-3.0	20	1.0 ²	0.7	3.0	20	1.0	3.5	20	—	—	—	—	—	DSG
J231	-40	-1.0	-0.2	-30	-1.5	-5.0	20	1.0 ²	2.0	6.0	20	1.5	4.0	20	—	—	—	—	—	DSG
J232	-40	-1.0	-0.2	-30	-3.0	-6.0	20	1.0 ²	5.0	10	20	2.5	5.0	20	—	—	—	—	—	DSG
J304	-30	-1.0	-0.1	-20	-2.0	-6.0	15	1.0	5.0	15	15	4.5	7.5	15	—	—	—	—	—	DSG

NOTES: † Reversed pinning (S-G-D) available on special order—add suffix letter 'R' to part number.

Continued next page...

‡ Reversed pinning (S-D-G) available on special order—add suffix letter 'R' to part number.

§ Reversed pinning (G-S-D) available on special order—add suffix letter 'R' to part number.

- 1) V_{GS} = 0 V.
- 2) I_D in μA.
- 3) V_{DS} = 0 V, V_{GS} in volts.
- 4) I_D = 10 mA.
- 5) I_D = 5.0 mA.
- 6) I_D = 1.0 mA.
- 7) I_D = 500 μA.
- 8) I_D = 200 μA.

