



**National
Semiconductor**

N-Channel JFETs

NATL SEMICOND DISCRETE LIF D 6501130 0037100 9

General Purpose Amplifiers

Type No.	Case Style	BV _{GSS} BV _{GDO} (V) @ I _g (μA)	I _{GSS} (mA) @ V _{GG} Max (V)	V _p (V) @ V _{DS} Min Max (V)	I _b (mA)	I _{SS} (mA) @ V _{DS} Min Max (V)	G _{fs} (mmho) @ V _{DS} Min Max (V)	G _{oss} (μmho) @ V _{DS} Max (V)	C _{iss} (pF) @ V _{DS} Max (V)	V _{GS} (V)	C _{iss} (pF) @ V _{DS} Max (V)	V _{GS} (V)	C _{iss} (pF) @ V _{DS} Max (V)	V _{GS} (V)	(AV) ^{0.5} (Hz) Max	Process No.	Pkg No.
2N3369	TO-18	40	5	6.5	20	0.5	0.6	30	20	8	30	0	3	0	150	52	02
2N3370	TO-18	40	5	3.2	20	0.1	0.3	30	20	8	30	0	3	0	150	52	25
2N3458	TO-18	50	0.25	7.8	20	3	2.5	30	18	0	10	-10	5	30	225	52	02
2N3459	TO-18	50	0.25	3.4	20	0.8	1.5	20	18	0	18	0	5	30	155	52	02
2N3460	TO-18	50	0.25	1.8	20	0.2	0.8	20	18	0	18	0	5	30	155	52	02
2N3684	TO-72	50	0.1	2	5	2.5	2	20	4	20	20	0	1.2	20	100	52	25
2N3685	TO-72	50	0.1	1	3.5	20	1.5	20	4	20	20	0	1.2	20	100	52	25
2N3686	TO-72	50	0.1	0.6	2	0.4	1.2	20	4	20	20	0	1.2	20	100	52	25
2N3687	TO-72	50	0.1	0.3	1.2	0.1	0.5	20	4	20	20	0	1.2	20	100	52	25
2N3821	TO-72	50	0.1	4	15	0.5	1.5	15	5	20	15	0	3	15	200	55	25
2N3822	TO-72	50	0.1	6	15	0.5	3	15	6	15	15	0	3	15	200	55	25
2N3967	TO-72	30	0.1	2	5	20	2.5	20	5	20	20	0	1.3	20	84	55	25
2N3967A	TO-72	30	0.1	2	5	20	2.5	20	5	20	20	0	1.3	20	84	55	25
2N3968	TO-72	30	0.1	3	20	1	2	20	5	20	20	0	1.3	20	160	55	25
2N3968A	TO-72	30	0.1	3	20	1	2	20	5	20	20	0	1.3	20	160	55	25
2N3969	TO-72	30	0.1	1.7	20	0.4	1.3	20	5	20	20	0	1.3	20	84	55	25
2N3969A	TO-72	30	0.1	1.7	20	0.4	1.3	20	5	20	20	0	1.3	20	84	55	25
2N4220	TO-72	30	0.1	4	15	0.5	1	15	6	15	15	0	2	15	115	55	25
2N4220A	TO-72	30	0.1	4	15	0.5	1	15	6	15	15	0	2	15	115	55	25
2N4221	TO-72	30	0.1	6	15	0.1	2	15	6	15	15	0	2	15	115	55	25
2N4221A	TO-72	30	0.1	6	15	0.1	2	15	6	15	15	0	2	15	115	55	25
2N4222	TO-72	30	0.1	8	15	0.1	5	15	6	15	15	0	2	15	115	55	25
2N4222A	TO-72	30	0.1	8	15	0.1	5	15	6	15	15	0	2	15	115	55	25
2N4338	TO-18	50	0.1	0.3	1	15	0.6	15	7	15	15	0	3	15	68	52	02
2N4339	TO-18	50	0.1	0.6	1.8	15	0.8	2.4	7	15	15	0	3	15	68	52	02
2N4340	TO-18	50	0.1	1	3	15	1.3	3	7	15	15	0	3	15	68	52	02
2N4341	TO-18	50	0.1	2	6	15	2	4	7	15	15	0	3	15	68	52	02
2N5103	TO-72	25	0.1	0.5	4	15	2	8	5	15	15	0	1	15	100	50	25
2N5104	TO-72	25	0.1	0.5	4	15	3.5	7.5	5	15	15	0	1	15	100	50	25

*I_b = 1 mA; I_{SS} = 500 μA; f_{11b} = 40 μA; **I_b = 100 μA; C_{iss} = 250 μA.

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General Purpose Amplifiers (Continued)

Type No.	Case Style	BV _{GSS} •BV _{GDO} (V) @ I _G (μA)	I _{SSS} (nA) @ V _{GS} Max (V)	V _p (V) @ V _{GS} Min Max (V)	I _D (nA)	I _{SSS} (nA) @ V _{GS} Min Max (V)	G _{fs} (mmho) @ V _{GS} Min Max (V)	C _{oss} (μmho) @ V _{GS} Max (V)	C _{iss} (pF) @ V _{GS} Max (V)	V _{GS} (V)	C _{iss} (pF) @ V _{GS} Max (V)	V _{GS} (V)	C _{iss} (pF) @ V _{GS} Max (V)	(NV) ² / (Hz) ² Max	(NV) ² / (Hz) ² Max	Process No.	Pkg. No.
2N5105	TO-72	25	0.1	15	0.5	4	15	15	5	15	0	15	1	115	100	50	25
2N5358	TO-72	40	0.1	20	0.5	3	15	100	1	15	0	15	2	115	100	55	25
2N5359	TO-72	40	0.1	20	0.8	4	15	100	0.6	1.6	15	0	2	115	100	55	25
2N5360	TO-72	40	0.1	20	0.8	4	15	100	1.5	3.0	15	0	2	115	100	55	25
2N5361	TO-72	40	0.1	20	1	6	15	100	2.5	5	15	0	2	115	100	55	25
2N5362	TO-72	40	0.1	20	2	7	15	100	4	8	15	0	2	115	100	55	25
2N5363	TO-72	40	0.1	20	2.5	8	15	100	7	14	15	0	2	115	100	55	25
2N5364	TO-72	40	0.1	20	2.5	8	15	100	9	18	15	0	2	115	100	55	25
2N5457	TO-92	25	1	15	0.5	6	15	10	1	5	15	0	3	115	100	55	92
2N5458	TO-92	25	1	15	1	7	15	10	2	9	15	0	3	115	100	55	92
2N5459	TO-92	25	1	15	2	8	15	10	4	16	15	0	3	115	100	55	92
2N5556	TO-72	30	0.1	15	0.2	4	15	1	0.5	2.5	15	0	3	35	10	50	25
2N5557	TO-72	30	0.1	15	0.8	5	15	1	2	5	15	0	3	35	10	50	25
2N5558	TO-72	30	0.1	15	1.5	6	15	1	4	10	15	0	3	35	10	50	25
J201	TO-92	40	0.1	20	0.3	1.5	20	10	0.2	1	20	0.5	6			52	92
J202	TO-92	40	0.1	20	0.8	4	20	10	0.9	4.5	20	1	20			52	92
J203	TO-92	40	0.1	20	2	10	20	10	4	20	20	1.5	20			52	92
J210	TO-92	25	0.1	15	1	3	15	1	2	15	15	4	12	15	150	90	92
J211	TO-92	25	0.1	15	2.5	4.5	15	1	7	20	15	7	12	15	200	90	92
J212	TO-92	25	0.1	15	4	6	15	1	15	40	15	7	12	15	200	90	92
MPF103	TO-92	25	1	15	6	15	1	1	1	5	15	0	3	115	1000	55	92
MPF104	TO-92	25	1	15	7	15	1	2	9	15	15	0	3	115	1000	55	92
MPF105	TO-92	25	1	15	8	15	1	4	16	15	15	0	3	115	1000	55	92
MPF109	TO-92	25	10	1	0.2	8	15	10	0.5	24	15	0	3	115	1000	55	92
MPF110	TO-92	20	10	100	0.5	10	10	1	0.5	20	10	0	3	115	1000	55	92
MPF111	TO-92	20	10	100	0.5	10	10	1000	0.5	20	10	0	3	115	1000	55	92
MPF112	TO-92	25	10	100	0.5	10	10	1000	1	25	10	0	1.2	20	20	52	92
PN3684	TO-92	50	0.1	30	2	5	20	1	2.5	7.5	20	0	4	20	0	52	92
PN3685	TO-92	50	0.1	30	1	3.5	20	1	1	3	20	0	4	20	0	52	92
PN3686	TO-92	50	0.1	30	0.6	2	20	1	0.4	1.2	20	0	4	20	0	52	92

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PN3687	TO-92	50	0.1	0.3	1.2	20	1	0.5	20	4	20	0	150	52	92
PN4220	TO-92	30	0.1	4	15	1	0.5	3	15	6	15	0	10	55	92
PN4221	TO-92	30	0.1	6	15	1	2	6	15	6	15	0	20	55	92
PN4222	TO-92	30	0.1	8	15	1	5	15	15	6	15	0	40	55	92
PN4302	TO-92	30	1	4	20	10	0.5	5	20	6	20	0	50	52	92
PN4303	TO-92	30	1	6	20	10	4	10	20	6	20	0	50	52	92
PN4304	TO-92	30	1	10	20	10	0.5	15	20	6	20	0	50	52	92
PN4338	TO-92	50	0.1	0.3	1	15	100	0.2	0.6	7	15	0	125	52	92
PN4389	TO-92	50	0.1	0.6	1.8	15	100	0.5	1.5	7	15	0	50	52	92
PN5163	TO-92	25	1	0.4	8	15	1000	1	40	12	15	0	100	50	92
TIS58	TO-92	25	1	0.5	5	15	20	2.5	8	6	15	2 mA	100	50	94
TIS59	TO-92	25	1	1	9	15	20	6	25	6	15	2 mA	100	50	94

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