



**GENERAL PURPOSE AMPS AND SWITCHES** (Continued)

Type No.	Case Style	V <sub>CBO</sub> (V) Min	V <sub>CEO</sub> (V) Min	V <sub>EBO</sub> (V) Min	I <sub>CS</sub> * (nA)		h <sub>FE</sub> Min	I <sub>C</sub> (mA) @	V <sub>CE</sub> (V)	V <sub>CE(SAT)</sub> (V) & V <sub>BE(SAT)</sub> (V) @ I <sub>C</sub> (mA)			C <sub>ob</sub> (pF) Max	f <sub>T</sub> (MHz) @ I <sub>C</sub> (mA)		t <sub>off</sub> (ns) Max	NF (dB) Max	Test Conditions	Process No.	
					I <sub>CBO</sub> (nA) Max	V <sub>CB</sub> (V)				Max	Min	Max		Min	Max					
2N3906	TO-92 (92)	40	40	5			30	100	1	0.25	0.65	0.85	10	4.5	250	10	300	4	5/8	66
							60	50	1											
							100	300	10	0.4		0.95	50							
							80	1	1											
							60	0.1	1											
2N4121	TO-92 (92)	Same as PN4121, see page 2-16 for explanation																	66	
2N4122	TO-92 (92)	Same as PN4122, see page 2-16 for explanation																	66	
2N4125	TO-92 (92)	30	30	4	50	20	25	50	1	0.4	0.95	50	4.5	200	10		5	8	66	
2N4126	TO-92 (92)	25	25	4	50	20	60	50	1	0.4	0.95	50	4.5	250	10		4	8	66	
							120	360	2	1										
2N4916	TO-92 (92)	Same as PN4916, see page 2-16 for explanation																	66	
2N4917	TO-92 (92)	Same as PN4917, see page 2-16 for explanation																	66	
2N5138	TO-92 (92)	Same as PN5138, see page 2-16 for explanation																	66	
2N5139	TO-92 (92)	Same as PN5139, see page 2-16 for explanation																	66	
MPS3905	TO-92 (92)	40	40	5			30	0.1	1	0.25	0.65	0.85	10	4.5	200	10		5	8	66
							40	1	1											
							50	150	10	1										
							30	50	1											
							15	100	1	0.4		0.95	50							
MPS3906	TO-92 (92)	40	40	5			60	0.1	1	0.25	0.65	0.85	10	4.5	250	10		4	8	66
							80	1	1											
							100	300	10	1										
							60	50	1											
							30	100	1	0.4		0.95	50							
MPS6516	TO-92 (92)	40	40	4	50	30	30	100	10	0.5		50	4						66	
							50	100	2	10										
MPS6517	TO-92 (92)	40	40	4	50	30	60	100	10	0.5		50	4						66	
							90	180	2	10										

**TEST CONDITIONS:**

(1) I<sub>C</sub> = 300 mA, V<sub>CC</sub> = 10V, I<sub>B</sub><sup>1</sup> = I<sub>B</sub><sup>2</sup> = 30 mA. (2) I<sub>C</sub> = 150 mA, V<sub>CC</sub> = 6V, I<sub>B</sub><sup>1</sup> = I<sub>B</sub><sup>2</sup> = 15 mA. (3) I<sub>C</sub> = 300 mA, V<sub>CC</sub> = 15V, I<sub>B</sub><sup>1</sup> = I<sub>B</sub><sup>2</sup> = 30 mA. (4) I<sub>C</sub> = 300 mA, V<sub>CC</sub> = 30V, I<sub>B</sub><sup>1</sup> = I<sub>B</sub><sup>2</sup> = 30 mA. (5) I<sub>C</sub> = 10 mA, V<sub>CC</sub> = 3V, I<sub>B</sub><sup>1</sup> = I<sub>B</sub><sup>2</sup> = 1 mA. (6) I<sub>C</sub> = 100 μA, V<sub>CE</sub> = 5V, f = 100 Hz. (7) I<sub>C</sub> = 30 μA, V<sub>CE</sub> = 5V, f = 1 kHz. (8) I<sub>C</sub> = 100 μA, V<sub>CE</sub> = 5V, f = 1 kHz. (9) I<sub>C</sub> = 250 μA, V<sub>CE</sub> = 5V, f = 1 kHz. (10) I<sub>C</sub> = 10 μA, V<sub>CE</sub> = 5V, f = 1 kHz. (11) I<sub>C</sub> = 50 mA, V<sub>CC</sub> = 30V, I<sub>B</sub><sup>1</sup> = I<sub>B</sub><sup>2</sup> = 5 mA. (12) I<sub>C</sub> = 150 mA, V<sub>CC</sub> = 30V, I<sub>B</sub><sup>1</sup> = I<sub>B</sub><sup>2</sup> = 15 mA. (13) I<sub>C</sub> = 50 mA, V<sub>CC</sub> = 10V, I<sub>B</sub><sup>1</sup> = I<sub>B</sub><sup>2</sup> = 5 mA.

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## Conversion of TO-105/TO-106 to TO-92 (Continued)

### Bipolar

TO-105/106	TO-92	TO-105/106	TO-92	TO-105/106	TO-92
EN2222	PN2222-18	2N3692	PN3692-18	2N4965	2N5086-18
EN2369A	PN2369A-18	2N3693	MPS3693-18	2N4966	2N5209-18
EN2484	PN2484-18	2N3694	PN3694-18	2N4967	2N5210-18
3N2907	PN2907-18	2N4121	PN4121-18	2N4968	2N5209-18
EN918	PN918-18	2N4122	PN4122-18	2N4969	PN2221-18
EN930	PN930-18	2N4140	PN4140-18	2N4970	PN2222-18
SM3904	2N3904-18	2N4141	PN4141-18	2N4971	PN2906-18
SM3906	2N3906-18	2N4142	PN4142-18	2N4972	PN2907-18
2N3563	PN3563-18	2N4143	PN4143-18	2N5127	PN5127-18
2N3564	PN3564-18	2N4248	PN4248-18	2N5128	PN5128-5
2N3565	PN3565-18	2N4249	PN4249-18	2N5129	PN5129-18
2N3566	PN3566-5	2N4250	PN4250-18	2N5130	PN5130-18
2N3567	PN3567-5	2N4250A	PN4250A-18	2N5131	PN5131-18
2N3568	PN3568-5	2N4258	PN4258-18	2N5132	PN5132-18
2N3569	PN3569-5	2N4258A	PN4258A-18	2N5133	PN5133-18
2N3638	PN3638-5	2N4274	PN4274-18	2N5134	PN5134-18
2N3638A	PN3638A-5	2N4275	PN4275-18	2N5135	PN5135-18
2N3639	PN3639-18	2N4354	PN4354-5	2N5136	PN5136-5
2N3640	PN3640-18	2N4355	PN4355-5	2N5137	PN5137-18
2N3641	PN3641-5	2N4356	PN4356-5	2N5138	PN5138-18
2N3642	PN3642-5	2N4916	PN4916-18	2N5139	PN5139-18
2N3643	PN3643-5	2N4917	PN4917-18	2N5142	PN5142-18
2N3644	PN3644-5	2N4944	PN2222A-18	2N5143	PN5143-18
2N3645	PN3645-5	2N4945	PN2222A-18	2N5910	PN5910-18
2N3646	PN3646-18	2N4946	PN2222A-18		
2N3691	PN3691-18	2N4964	MPSA70-18		

### FETs

TO-106	TO-92	TO-106	TO-92	TO-106	TO-92
E100	J203-18	E300	J300-18	KE4393	PN4393-18
E101	J201-18	E304	J304-18	KE4416	PN4416-18
E102	J202-18	E305	J305-18	KE4857	PN4857-18
E103	J203-18	E308	J308-18	KE4858	PN4858-18
E108	J108-18	E309	J309-18	KE4859	PN4859-18
E109	J109-18	E310	J310-18	KE4860	PN4860-18
E110	J110-18	E311	J309-18	KE4861	PN4861-18
E111	J111-18	E312	J310-18	ITE4391	PN4391-18
E112	J112-18	KE3684	PN3684-18	ITE4392	PN4392-18
E113	J113-18	KE3685	PN3685-18	ITE4393	PN4393-18
E114	J114-18	KE3686	PN3686-18	P1086E	P1086-18
E174	J174-18	KE3687	PN3687-18	P1087E	P1087-18
E175	J175-18	KE4091	PN4091-18	U1897E	U1897-18
E176	J176-18	KE4092	KE4092-18	U1898E	U1898-18
E201	J201-18	KE4093	PN4093-18	U1899E	U1899-18
E202	J202-18	KE4220	PN4220-18	2N4302	PN4302-18
E203	J203-18	KE4221	PN4221-18	2N4303	PN4303-18
E210	J210-18	KE4222	PN4222-18	2N4304	PN4304-18
E211	J211-18	KE4223	PN4223-18	2N4342	PN4342-18
E212	J212-18	KE4224	PN4224-18	2N4343	PN4343-18
E270	J270-18	KE4391	PN4391-18	2N4360	PN4360-18
E271	J271-18	KE4392	PN4392-18	2N5033	PN5033-18
				2N5163	PN5163-18