



## GENERAL PURPOSE AMPS AND SWITCHES (Continued)

Type No.	Case Style	VCBO (V)	VCEO (V)	VEBO (V)	ICES* ICBO (nA) @ VCB (V)	hFE @ IC (mA) & VCE (V)	VCE(SAT) (V) & VBE(SAT) (V) @ IC (mA)	Cob (pF) Max	fT (MHz) @ IC (mA)	t <sub>off</sub> (ns) Max	NF (dB) Max	Test Conditions	Process No.										
		Min	Min	Min	Max	Min Max	Max Min Max	Max	Min Max	Max	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												1	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)  $I_C = 300 \text{ mA}$ ,  $V_{CC} = 10\text{V}$ ,  $I_{B^1} = I_{B^2} = 30 \text{ mA}$ . (2)  $I_C = 150 \text{ mA}$ ,  $V_{CC} = 6\text{V}$ ,  $I_{B^1} = I_{B^2} = 15 \text{ mA}$ . (3)  $I_C = 300 \text{ mA}$ ,  $V_{CC} = 15\text{V}$ ,  $I_{B^1} = I_{B^2} = 30 \text{ mA}$ . (4)  $I_C = 300 \text{ mA}$ ,  $V_{CC} = 30\text{V}$ ,  $I_{B^1} = I_{B^2} = 30 \text{ mA}$ . (5)  $I_C = 10 \text{ mA}$ ,  $V_{CC} = 3\text{V}$ ,  $I_{B^1} = I_{B^2} = 1 \text{ mA}$ . (6)  $I_C = 100 \mu\text{A}$ ,  $V_{CE} = 5\text{V}$ ,  $f = 100 \text{ Hz}$ . (7)  $I_C = 30 \mu\text{A}$ ,  $V_{CE} = 5\text{V}$ ,  $f = 1 \text{ kHz}$ . (8)  $I_C = 100 \mu\text{A}$ ,  $V_{CE} = 5\text{V}$ ,  $f = 1 \text{ kHz}$ . (9)  $I_C = 250 \mu\text{A}$ ,  $V_{CE} = 5\text{V}$ ,  $f = 1 \text{ kHz}$ . (10)  $I_C = 10 \mu\text{A}$ ,  $V_{CE} = 5\text{V}$ ,  $f = 1 \text{ kHz}$ . (11)  $I_C = 50 \text{ mA}$ ,  $V_{CC} = 30\text{V}$ ,  $I_{B^1} = I_{B^2} = 5 \text{ mA}$ . (12)  $I_C = 150 \text{ mA}$ ,  $V_{CC} = 30\text{V}$ ,  $I_{B^1} = I_{B^2} = 15 \text{ mA}$ . (13)  $I_C = 50 \text{ mA}$ ,  $V_{CC} = 10\text{V}$ ,  $I_{B^1} = I_{B^2} = 5 \text{ mA}$ .

## 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