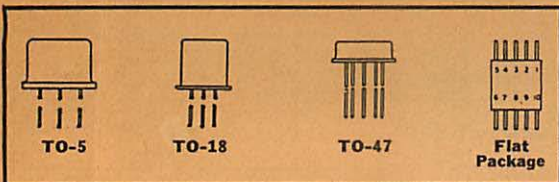




Amelco Integrated Circuits



DIRECT COUPLED TRANSISTOR LOGIC (DCTL)

Power Supply: +3.0 volts. Part No. Designation: B, buffer; C, counter adapter; E, dual three input gate expander; F, R-S flip-flop; G, five input gate; H, half adder; I, quad inverter; J, four input gate; K, three input gate; L, dual two input gate; M or N, dual three input gate; O, one shot multivibrator; P, full shift register (J-K flip-flop, two-phase); Q, quad two input gate; R, full shift register (J-K flip-flop, one-phase); S, half shift register; T, full shift register (J-K master slave); U, full shift register (J-K single rank). Case type indicated by first digit: 1 for TO-5; 2 for TO-47 (available); 4 for flat package (e.g. B11-001).

PREMIUM GRADE, -55° C TO +125° C

Type No.	Fan In	Fan Out	t _{pd} , nsec	Pwr. Diss. mW	Net Each, Lots of		
					1-24	25-99	100-999
B11-001	1	60	15	35	\$20.90	\$18.40	\$14.00
B41-001	1	60	15	35	25.30	22.40	17.00
B11-501*					23.00	20.15	15.40
B41-501*					28.00	24.15	18.40
C11-001	1-1-1	10	35	50	40.90	35.95	27.40
C41-001	1-1-1	10	35	50	45.90	39.95	30.40
F11-001	1-1	10	18	20	21.80	19.10	14.60
F41-001	1-1	10	18	20	26.80	23.10	17.60
G11-001	5	10	15	10	21.60	19.00	14.50
G41-001	5	10	15	10	26.60	23.00	17.50
H11-001	2-2	10	22	42	31.45	27.60	21.10
H41-001	2-2	10	22	42	36.45	31.60	24.10
I11-001					21.60	19.00	14.50
I41-001					26.60	23.00	17.50
J11-001	4	10	15	10	21.60	19.00	14.50
J41-001	4	10	15	10	26.60	23.00	17.50
K11-001	3	10	15	10	17.00	15.00	11.40
K41-001	3	10	15	10	23.00	19.00	14.40
L11-001	2-2	10	15	20	23.50	20.65	15.70
L41-001	2-2	10	15	20	28.50	24.65	18.70
M11-001	3-3	10	15	20	27.20	23.30	18.20
M41-001	3-3	10	15	20	32.20	27.30	21.20
N11-001					27.20	23.30	18.20
N41-001					32.20	27.30	21.20
O11-001	1	10	†	20	24.50	21.60	16.40
P11-001	{J-K-C}	10	30	84	37.50	33.00	25.00
P41-001	{C-S-R}	10	30	84	42.50	37.00	28.00
Q11-001					27.20	23.30	18.20
Q41-001					32.20	27.30	21.20
R11-001	{J-K-C}	10	45	84	34.00	30.00	22.80
R41-001	{S-R}	10	45	84	39.00	34.00	25.80
S11-001	R-S-C	10	32	50	32.50	28.60	21.80
S41-001	R-S-C	10	32	50	37.50	32.60	24.80
T11-001					34.00	30.00	22.80
T41-001					39.00	34.00	25.80

STANDARD GRADE, -55° C TO +125° C

Type No.	Fan In	Fan Out	t _{pd} , nsec	Pwr. Diss. mW	Net Each, Lots of		
					1-24	25-99	100-249
B11-008	1	30	15	35	\$18.45	\$16.20	\$12.40
B41-008	1	30	15	35	23.45	20.20	15.40
B11-508*					20.15	17.80	13.70
B41-508*					25.15	21.80	16.70
C11-008	1-1-1	5	35	50	36.10	31.70	24.15
C41-008	1-1-1	5	35	50	41.10	35.70	27.15
E11-008	3-3	5	15	10	16.00	14.10	10.70
E41-008	3-3	5	15	10	21.00	18.10	13.70
F11-008	1-1	5	18	20	19.20	16.90	12.85
F41-008	1-1	5	18	20	24.20	20.90	15.85
G11-008	5	5	15	10	21.10	18.60	14.10
G41-008	5	5	15	10	26.10	22.60	17.10
H11-008	2-2	5	22	42	27.75	24.40	18.60
H41-008	2-2	5	22	42	32.75	28.40	21.60
I11-008					21.70	18.60	14.10
I41-008					26.70	22.60	17.10
J11-008	4	5	15	10	26.10	22.60	17.10
K11-008	3	5	15	10	15.30	13.50	10.30
K41-008	3	5	15	10	20.30	17.50	13.30
L11-008	2-2	5	15	20	21.10	18.60	14.10
L41-008	2-2	5	15	20	26.10	22.60	17.10
M11-008	3-3	5	15	20	24.50	21.50	16.40
M41-008	3-3	5	15	20	29.50	25.50	19.40
N11-008					24.50	21.50	16.40
N41-008					29.50	25.50	19.40
O11-008	1	5	†	20	22.10	19.40	14.80
P11-008	{J-K-C}	5	30	84	33.80	29.70	22.50
P41-008	{C-S-R}	5	30	84	38.80	33.70	25.50
Q11-008					24.50	21.50	16.40
Q41-008					29.50	25.50	19.40
R11-008	{J-K-C}	5	45	84	30.50	28.50	21.70
R41-008	{S-R}	5	45	84	35.50	32.50	24.70
S11-008	R-S-C	5	32	50	29.15	25.80	19.65
S41-008	R-S-C	5	32	50	34.15	29.80	22.65
T11-008					30.00	26.40	20.00
T41-008					35.00	30.40	23.00
U11-008					28.00	24.50	18.75
U41-008					33.00	28.50	21.75

*High current type. †Variable pulse width.

DCTL (CONTINUED) INDUSTRIAL GRADE, 0° C TO +70° C

Type No.	Fan In	Fan Out	t _{pd} , nsec	Pwr. Diss. mW	Net Each, Lots of		
					1-24	25-99	100-999
B11-004	1	32	15	35	\$ 8.40	\$ 8.40	\$ 7.20
B11-504*					9.25	9.25	7.85
C11-004	1-1-1	5	35	50	12.00	12.00	10.20
E11-004	3-3	5	15	10	6.50	6.50	5.50
F11-004	1-1	5	18	20	7.80	7.80	6.70
G11-004	5	5	15	10	7.50	7.50	6.40
H11-004	2-2	5	22	42	10.00	10.00	8.50
I11-004					7.50	7.50	6.40
J11-004	4	5	15	10	7.50	7.50	6.40
K11-004	3	5	15	10	6.75	6.75	5.80
L11-004	2-2	5	15	20	7.50	7.50	6.40
M11-004	3-3	5	15	20	10.00	10.00	8.50
N11-004					10.00	10.00	8.50
O11-004	1	5	†	20	8.50	8.50	7.50
P11-004	†	5	30	84	18.15	18.15	15.40
Q11-004					10.00	10.00	8.50
R11-004	§	5	45	84	16.50	16.50	14.00
S11-004	R-S-C	5	32	50	11.00	11.00	9.35
T11-004					12.50	12.50	10.60
U11-004					12.50	12.50	10.60

DIODE TRANSISTOR LOGIC (DTL) -55° C TO +125° C

Power Supply: +4.0 volts. Part No. Designation: See DCTL listing unless otherwise noted.

Type No.	Fan In	Fan Out	t _{pd} , nsec	Pwr. Diss. mW	Net Each	25-99	100-249
B12-001	3	20	80	4.0	\$24.50	\$21.60	\$19.60
B42-001	3	20	80	4.0	29.50	25.60	22.10
E12-001	6				12.50	11.00	10.00
E42-001	6				17.50	15.00	13.00
G12-002	{4	5	100	1.0	24.50	21.60	19.60
G42-002	{(four input)				29.50	25.60	22.10
G12-003	{3/2	5	100	1.0	24.50	21.60	19.60
G42-003	{(3-input/2-input)				29.50	25.60	22.10
O12-001	2	5	†	3.5	24.50	21.60	19.60
O42-001	2	5	†	3.5	29.50	25.60	22.60
R12-001	{J-K-C}	4	4.0#	3.5	32.00	28.10	25.60
R42-001	{S-R}		(single rank)		37.00	32.10	28.60
R12-002	{J-K-C}	4	4.0#	9.0	35.00	30.80	28.00
R42-002	{C-S-R}		(master slave)		40.00	34.80	31.00

*High current type. †Variable pulse width. ‡J-K-C, C-S-R. §J-K-C, S-R. #Mc, clock rate.

MULTIPLE INTEGRATED CIRCUIT ASSEMBLIES

Type No.	Description	Net Each	25-99	100-249
E16-501	Analog gate	\$29.50	\$26.00	\$19.75
E16-511	Wideband amplifier	27.50	24.20	18.40
T15-002	One-shot multivibrator	27.50	24.20	18.40
T15-021	Binary element	36.00	31.70	24.10
T35-001	3-stage counter	75.00	66.00	50.25

LINEAR INTEGRATED CIRCUITS, -55° C TO +125° C*

Case type indicated by 1st digit: 1, TO-5; 4, flat package.

Type No.	Amplifier Type	BW -3 db	Pwr. mW	Voltage Gain	Net Ea.	1-99	100-249
A13-251	Operational	100 kc	120	20 kV	\$ 44.50	\$ 35.50	
D13-000	2-stage differential	400 kc	100	2 kV	125.00	100.00	
D13-001	2-stage differential	400 kc	100	2 kV	140.00	115.00	
D13-002	2-stage differential	400 kc	100	1.5 kV	35.00	28.00	
D43-002	2-stage differential	400 kc	100	1.5 kV	40.00	32.00	
D13-011	Differential amplifier	300 kc	200	150 V	27.50	22.00	
D43-011	Differential amplifier	300 kc	200	150 V	32.50	26.00	
E13-001	VHF Amplifier	40 mc		15 db	45.00	36.00	

*-25° C to +85° C for D13-002, D43-002.

SPECIAL ASSEMBLIES

Multiple silicon transistors in a single package.

FIELD EFFECT DIFFERENTIAL AMPLIFIERS

BVDG0: 5 V min. g_{m1}/g_{m2}: 1.0 max. Case: TO-18 (flat package available). SU2000 is cascode connected.

Type No.	g _m μmhos Min.	g _{m2} Min.	IDSS mA Min.-Max.	VGS(1-2) mV Max.	I _G nA Max.	Net Each, Lots of	
						1-49	50-249
SU2000	1500		8-4.0		.5	\$30.00	\$20.00
SU2020	150	.95	2-2.0	5.0	.1	87.00	60.90
SU2021	150	.90	2-2.0	10	.1	82.00	57.40
SU2022	150	.90	2-2.0	20	.1	77.00	53.90
SU2023	150	.80	2-2.0	40	.1	72.00	50.40
SU2024	1500	.95	8-4.0	5.0	.25	94.00	65.80
SU2025	1500	.90	8-4.0	10	.25	89.00	62.30
SU2026	1500	.90	8-4.0	20	.25	84.00	58.80
SU2027	1500	.80	8-4.0	40	.25	79.00	55.30
SU2028	300	.95	2.5-1.3	5	.1	32.00	21.50
SU2029	400	.95	8-3.0	5	.1	32.00	21.50
SU2030	300	.95	2.5-1.3	5	.1	24.00	16.00
SU2031	400	.95	8-3.0	5	.1	24.00	16.00
SU2032	1500	.95	1.0-1.0	5	.25	30.00	20.00
SU2033	2500	.95	5.0-2.0	5	.25	50.00	33.50
SU2034	1500	.95	1.0-1.0	5	.25	22.00	14.50
SU2035	2500	.95	5.0-2.0	5	.25	40.00	26.50



Amelco Transistors

SPECIAL ASSEMBLIES (CONT'D)

SILICON TRANSISTORS

All numbers listed are differential amplifiers unless noted otherwise.

Type No.	Pkg. TO-	V _{CEO} V Min.	h _{FE} Min.	h _{FE1} h _{FE2} Min.-Max.	V _{BE(1-2)} mV Max.	Net Ea., Lots	
						1-99	100-999
2N998*	18	60	1600	.....	1.2 V†	\$14.65	\$ 9.80
2N2060	5	60	40	9-1.0	5	36.00	24.00
2N2060#	5	60	40	9-1.0	5	45.00	30.00
2N2060A	5	60	40	9-1.0	3	52.90	34.85
2N2223	5	60	25	8-1.0	15	15.00	10.00
2N2223A	5	60	25	9-1.0	5	24.00	16.00
2N2453	5	30	150	9-1.0	3	32.00	15.00
2N2453A	5	45	65	9-1.0	5	23.90	15.90
2N2640	5	45	65	8-1.0	10	20.50	13.60
2N2641†	5	45	65	.....	1.0 V‡	10.60	7.10
2N2642	5	45	130	9-1.0	5	26.25	17.50
2N2643	5	45	130	8-1.0	10	25.00	16.70
2N2644†	5	45	130	.....	1.0 V‡	15.65	10.40
2N2720	5	60	35	9-1.0	5	28.10	18.70
2N2721	5	60	35	8-1.0	10	24.40	16.30
2N2722	5	45	100	9-1.0	5	40.50	27.00
2N2903	5	30	125	8-1.0	10	15.50	10.30
2N2903A	5	30	125	9-1.0	5	25.00	16.70
2N2913†	5	45	150	.....	0.35 V‡	10.50	7.00
2N2914†	5	45	300	.....	0.35 V‡	12.50	8.30
2N2915	5	45	150	9-1.0	3	30.75	20.50
2N2916	5	45	300	9-1.0	3	31.25	20.80
2N2917	5	45	150	8-1.0	5	23.15	15.40
2N2918	5	45	300	8-1.0	5	24.75	16.50
2N2919	5	60	150	9-1.0	3	31.25	20.80
2N2920	5	60	300	9-1.0	3	42.50	28.30
2N2972†	18	45	150	.....	0.35 V‡	12.50	8.30
2N2973†	18	45	300	.....	0.35 V‡	14.50	9.70
2N2974	18	45	150	9-1.0	3	36.50	24.30
2N2975	18	45	300	9-1.0	3	37.75	25.25
2N2976	18	45	150	8-1.0	5	24.25	16.10
2N2977	18	45	300	8-1.0	5	25.35	16.75
2N2978	18	60	150	9-1.0	3	39.25	26.20
2N2979	18	60	300	9-1.0	3	50.25	33.50
SA2253	5	.....	25	7-1.0	20	5.00	3.35
SA2254	5	30	45	8-1.0	10	15.00	11.00
SA2255	5	30	125	8-1.0	10	17.00	14.00
ASA-2	5	28	30	9-1.0	30	15.75	11.95

*Darlington. †Dual. ‡V_{CE(sat)}. §Flat pkg. available. †USN type.

P-CHANNEL FIELD EFFECT TRANSISTORS

Silicon planar devices in TO-18 package.

Type No.	BV _{DGO}	IG _{SS}	g _m μmhos	CDG	CSG	Net Ea., Lots	
						1-99	100-999
P1003	50 V min.	3.0 nA max.	1000-3500	6.0 pF max.	6.0 pF max.	\$13.20	\$ 8.80
P1004			2500-6000			14.10	9.40
P1005			3500-7000			16.80	11.20

NPN SILICON PASSIVATED PLANAR DIFFUSED TRANSISTORS

GENERAL PURPOSE

Type No.	Pkg. TO-	V _{CEO} V Min.	V _{EB0} V Min.	h _{FE} † Min.-Max.	IC _{BO} nA Max.	f _T Mc Min.	Net Ea., Lots	
							1-99	100-999
2N718	18	60	5	40-120	1.0K	50	\$1.30	\$0.86
2N718A	18	75	7	40-120	1.0	70	1.52	1.01
2N718A*	18	75	7	40-120	1.0	70	3.30	2.20
2N719A	18	120	7	20-60	10	40	2.50	1.67
2N720	18	120	5	40-120	2.0K	50	1.83	1.22
2N720A	18	120	7	40-120	10	50	2.48	1.65
2N870	18	100	7	40-120	10	50	5.25	3.50
2N871	18	100	7	100-300	10	60	5.33	3.56
2N856	18	75	7	100-300	10	70	2.17	1.44
2N1613	5	75	7	40-120	10	60	1.11	.74
2N1613*	5	75	7	40-120	10	60	1.80	1.20
2N1711	5	75	7	100-300	10	70	1.20	.80
2N1889	5	100	7	40-120	10	50	5.25	3.50
2N1890	5	100	7	100-300	10	60	5.30	3.55
2N1893	5	120	7	40-120	10	50	1.38	.92
2N1886	5	40	5	60-240	5K	40	3.60	2.40
2N1887	5	40	5	20-80	5K	40	4.00	3.00
2N1990	5	100	3	20 min.	.....	.....	3.55	2.35
A1109	18	45	5	70 min.	100	40	1.50	1.00
A1341	5	75	5	50 min.	10	40	1.80	1.20

SMALL SIGNAL AMPLIFIERS

HIGH VOLTAGE

Type No.	Pkg. TO-	V _{CEO} V Min.	V _{EB0} V Min.	h _{FE} Min.-Max.	IC _{BO} nA Max.	f _T Mc Min.	Net Ea., Lots	
							1-99	100-999
2N740	18	125	5	80-200	1	60	\$12.40	\$8.30
2N760A	18	60	8	76-333	100	50	1.83	1.22
2N910	18	100	7	80-200	25	60	2.37	1.58
2N911	18	100	7	40-100	25	50	4.80	3.50
2N912	18	100	7	20-50	25	40	5.20	3.90
2N1973	5	100	7	80-200	25	60	2.37	1.58
2N1974	5	100	7	40-100	25	50	6.60	4.90
2N1975	5	100	7	20-50	25	40	5.20	3.90

MEDIUM VOLTAGE

Type No.	Pkg. TO-	V _{CEO} V Min.	V _{EB0} V Min.	h _{FE} Min.-Max.	IC _{BO} nA Max.	f _T Mc Min.	Net Ea., Lots	
							1-99	100-999
2N760	18	45	8	76-333	200	50	\$1.80	\$1.20
2N1983	5	50	5	80-240	5K	40	2.50	1.67
2N1984	5	50	5	40-120	5K	40	2.33	1.56
2N1985	5	50	5	20-80	5K	40	3.80	2.45
2N1988	5	100	5	20-100	5K	40	4.10	3.15
2N1989	5	100	5	10 min.	5K	40	4.20	3.15

N-CHANNEL SILICON FIELD EFFECT

PASSIVATED PLANAR DIFFUSED TRANSISTORS

Package: TO-18 except U1287 (TO-5); flat package available.

GENERAL PURPOSE

Type No.	BV _{DGO} V Min.	IG _{SS} nA Max.	g _m μmhos Min.-Max.	CDG pF Max.	CSG pF Max.	Net Ea., Lots	
						1-99	100-999
2N3066	50	1	400-1000	1.5	3	\$ 9.50	\$ 6.30
2N3067	50	1	300-1000	1.5	3	11.50	7.70
2N3068	50	1	200-1000	1.5	3	13.50	9.00
2N3069	50	1	1000-2500	2.5	5	9.25	6.20
2N3070	50	1	750-2500	2.5	5	11.00	7.40
2N3071	50	1	500-2500	2.5	5	12.50	8.30
2N3365	40	5	400-2000	2	3	4.50	3.00
2N3366	40	5	250-1000	2	3	5.75	3.80
2N3367	40	5	100-1000	2	3	6.85	4.60
2N3368	40	5	1000-4000	3.5	6	4.50	3.00
2N3369	40	5	600-2500	3.5	6	5.65	3.75
2N3370	40	5	300-2500	3.5	6	6.45	4.30
U3000	30	100	30 min.	2	4	15.00	12.00
U3001	30	100	250 min.	2	4	22.00	16.00
U3002	30	100	200 min.	2	4	30.00	24.00
U3010	30	100	750 min.	3	6	15.00	12.00
U3011	30	100	600 min.	3	6	20.00	16.00
U3012	30	100	500 min.	3	6	30.00	24.00

LOW CAPACITANCE

Type No.	BV _{DGO} V Min.	IG _{SS} nA Max.	g _m μmhos Min.-Max.	CDG pF Max.	CSG pF Max.	Net Ea., Lots	
						1-99	100-999
2N3452	50	.1	200-1200	1.2	1.8	\$ 9.50	\$ 6.30
2N3453	50	.1	150-900	1.2	1.8	11.25	7.50
2N3454	50	.1	100-600	1.2	1.8	13.00	8.70
2N3455	50	.04	400-1200	1.0	1.5	12.50	8.30
2N3456	50	.04	300-900	1.0	1.5	14.25	9.50
2N3457	50	.04	150-600	1.0	1.5	16.00	10.70
U1277	50	.1	450*, 1.5 mA	1.2	1.8	7.00	4.70
U1278	50	.1	350*, 0.5 mA	1.2	1.8	7.00	4.70
U1279	50	.1	250*, 0.2 mA	1.2	1.8	9.00	6.00
U1280	50	.1	250 min.	1.2	1.8	4.50	3.00
U1285	30	5	200-1200	2	3	3.00	2.00
U1324†	.1	.1	1600-2400	1.3	1.5	12.75	8.50
U1325†	.1	.1	1300-1800	1.3	1.5	12.45	8.30
U1323†	.1	.1	800-1200	1.3	1.5	14.40	9.60
U1324†	.1	.1	850-1200	1.3	1.5	16.50	11.00
U1325†	.1	.1	500 min.	1.3	1.5	18.30	12.20

HIGH GAIN

Type No.	BV _{DGO} V Min.	IG _{SS} nA Max.	g _m μmhos Min.-Max.	CDG pF Max.	CSG pF Max.	Net Ea., Lots	
						1-99	100-999
2N3436	50	.5	2500-10000	5	5	\$10.75	\$ 7.20
2N3437	50	.5	1500-6000	5	5	12.50	8.30
2N3438	50	.5	800-4500	5	5	14.25	9.50
2N3458	50	.25	2500-10000	5	5	13.75	9.20
2N3459	50	.25	1500-6000	5	5	15.50	10.30
2N3460	50	.25	800-4500	5	5	17.25	11.50
U1281	50	.5	3000*, 8.0 mA	5	5	9.00	6.00
U1282	50	.5	2500*, 4.0 mA	5	5	9.50	6.35
U1283	50	.5	1500*, 1.0 mA	5	5	8.50	5.65
U1284	50	.5	1000 min.	5	5	5.25	3.50
U1286	30	10	1000-10000	8	8	3.50	2.35
U1287	30	2	Ro = 50n	20	20	20.00	13.50

*Minimum. †Epitaxial.

LOW NOISE-LOW LEVEL

PA types are PNP double diffused. PA-1000 for complementary use with 2N2509, 2N2510 and 2N2511.

Type No.	Pkg. TO-	V _{CEO} V Min.	V _{EB0} V Min.	h _{FE} Min.-Max.	IC _{BO} nA Max.	f _T Mc Min.	NF db Max.	Net Ea., Lots	
								1-99	100-999
2N780	18	45	5	20 min.	10	60	7	\$7.50	\$5.00
2N929	18	.....	5	40-120	.....	30	4	3.67	2.44
2N929†	18	.....	5	40-120	.....	30	4	5.70	3.80
2N930	18	.....	5	100-300	.....	30	4	4.00	2.67
2N930†	18	.....	5	100-300	.....	30	4	6.15	4.10
2N2049	5	75	7	20 min.	10	50	3</		