T-79-01

INTEGRATED CIRCUITS

SEMICONDUCTORS

(a) Operational amplifiers

LN05

TYPE	Input Offset Voltage @$R_S \geq 10K$ mV (typ/max)	Input Offset Current nA (typ/max)	Input Bias Current nA (typ/max)	Openloop Voltage gain @ $R_L \geq 2K$ & V = ±10V v/mV (min/typ)	Input Voltage range @ V_S=15V Volts (max)	Supply Voltage range Volts (max)	Output Voltage swing @$R_L \geq 2K$ Volts (min/typ)	Slew Rate Volts/µsec (typ)	Unity gain Bandwidth MHz (typ)	CMMR@ V_S=15V R_S=10K Over Temp. dB (typ)	Supply Current @V_S=15V mA (typ)	P_D⊕ mW (max)	Temp. Range °C min/max	Case
UA709	1/5	50/200	200/500	25/45	±10	±18	±10/±13	0.25	-	70	2.6	300	-55/+125	TO-99
UA709C	2/7.5	100/500	300/1500	12/-	±10	±18	±10/±13	0.25	-	90#	2.6	250	0/+70	TO-99
UA741	1/5	20/200	80/500	25/-	±15	±22	±10/±13	0.5	-	90	1.4	800	-55/+125	TO-99
UA741C	2/6	20/200	80/500	15/-	±15	±18	±10/±13	0.5	-	90#	1.4	800	0/+70	TO-99
UA748	1/5	20/200	80/500	50/200	±15	±22	±10/±13	0.5	-	90	1.7	500	-55/+125	TO-99
UA748C	2/6	20/200	80/500	50/200	±15	±18	±10/±13	0.5	-	90	1.7	500	0/+70	TO-99
LM101	1/5	40/200	110/500	25/-	±15	±22	±10/±13	0.5	-	90	1.8	500	-55/+125	TO-99
LM101A	0.7/2*	1.5/10	30/75	25/-	±15**	±22	±10/±13	0.5	-	96*	1.2**	500	-55/+125	TO-99
LM201	2/2.7	100/500	250/1500	15/-	±15	±18	±10/±13	0.5	-	90	1.8	500	0/+70	TO-99
LM201A	0.7/2*	1.5/10	30/75	25/-	±15**	±18	±10/±13	0.5	-	96*	1.2**	500	-25/+85	TO-99
LM301A	2/7.5*	3/50	70/250	15/-	±12	±18	±10/±13	0.5	-	90*	1.8	500	0/+70	TO-99
LM208	0.7/2	-/5	0.8/2	60/-	±12	±18	±10/±13	0.5	-	90	1.8	500	-25/+85	TO-99
LM308	2/7.5	0.2/1	1.5/7	15/-	±15	±18	±13/±14	-	-	100	0.3	500	0/+70	TO-99
LM308A	0.3/0.5	0.05/0.2	0.8/2	60/-	±15	±18	±13/±14	-	-	110	0.3	500	0/+70	TO-99

(b) Quad single supply operational amplifiers (+Vs = 5.0 V)

LN05

LM324	±2/±7†	±5/±50†	45/250†	25/100	-0.3 to +32	+32 to ±16	26/-ø	-	-	70†	1.5ø	468	0/+70	Plastic DIP 14 pin

(c) Instrumentation grade operational amplifiers

LN05

OP-07A	0.01/0.025	0.3/2	±0.7/±2	300/500	±14	±22	±12/±12.8	0.17	0.5	126	-	500	-55/+125	TO-99
OP-07	0.03/0.075	0.4/2.8	±1/±3	200/500	±14	±22	±12/±12.8	0.17	0.5	126	-	500	-55/+125	TO-99
LM714	0.03/0.075	0.4/2.8	±1/±3	200/500	±14	±22	±12/±12.8	0.17	0.5	126	-	500	-55/+125	TO-99
LM725	0.5 /1	2/20	42/100	1000/-	±14	±22	±10/±13.5	-	-	100	-	500	-55/+125	TO-99

(d) Quad single supply comparator

LN 14

LM339	±2/±5†	±5/±50†	25/250†	-/200	-0.3 to ±36	+36 to ±18	-	-	-	-	0.8†	468	0/+70	Plastic DIP 14 pin

*Rs.≥50 K **Vs = 20 V ⊕ Internal power dissipation # Ta = 25°C † Vs = +5 V ø Vs = +30 V

(e) Comparators

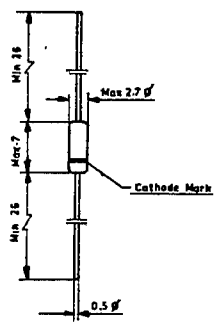
LN 14

TYPE	Input Offset Voltage @R ≤ 0.2K mV	Input Bias Current nA (typ/max)	Input Offset Current µA (typ)	Voltage Gain (min/typ)	Output Sink Current $V_{in} \geq 5V$ V_{out}=0 mA	Response Time nsec	CMMR@ $R_S \leq 0.2K$ dB	Power ⊖ Consumption mW	Temp. range °C (min/max)	Case
UA710	0.6/2	13/20	0.75	1.25K/1.7K	2.5	40	100	300	-55/+125	TO-99
UA710C	1.6/5	16/25	1.8	1.0K/1.5K	2.5	40	90	300	0/70	TO-99
UA711	1/3.5	25/75	0.5	750/1500	0.8	40	-	130	-55/+125	TO-99
UA711C	1/5	25/100	0.5	700/1500	0.8	40	-	130	0/+70	TO-99

CASE OUTLINES

SEMICONDUCTORS

DO-7



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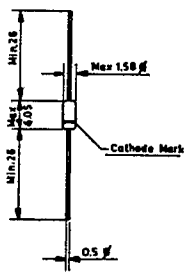
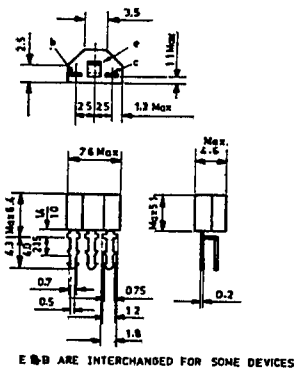
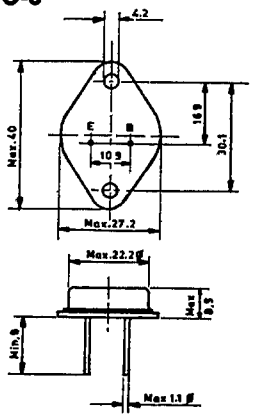


SOT-25

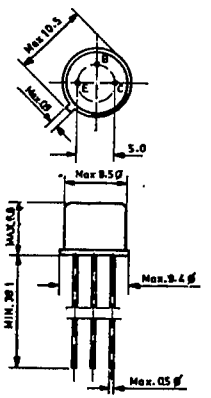


E & B ARE INTERCHANGED FOR SOME DEVICES

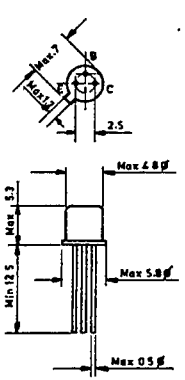
TO-3



TO-5



TO-18



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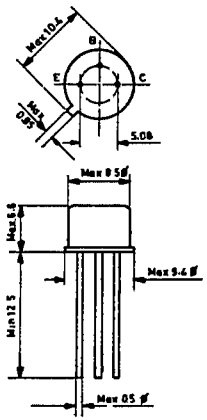

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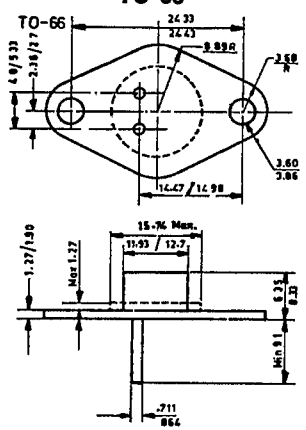

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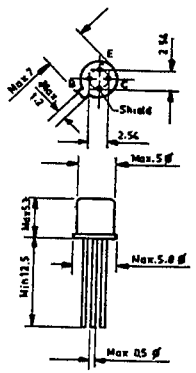
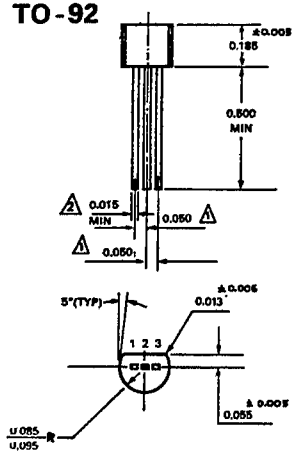


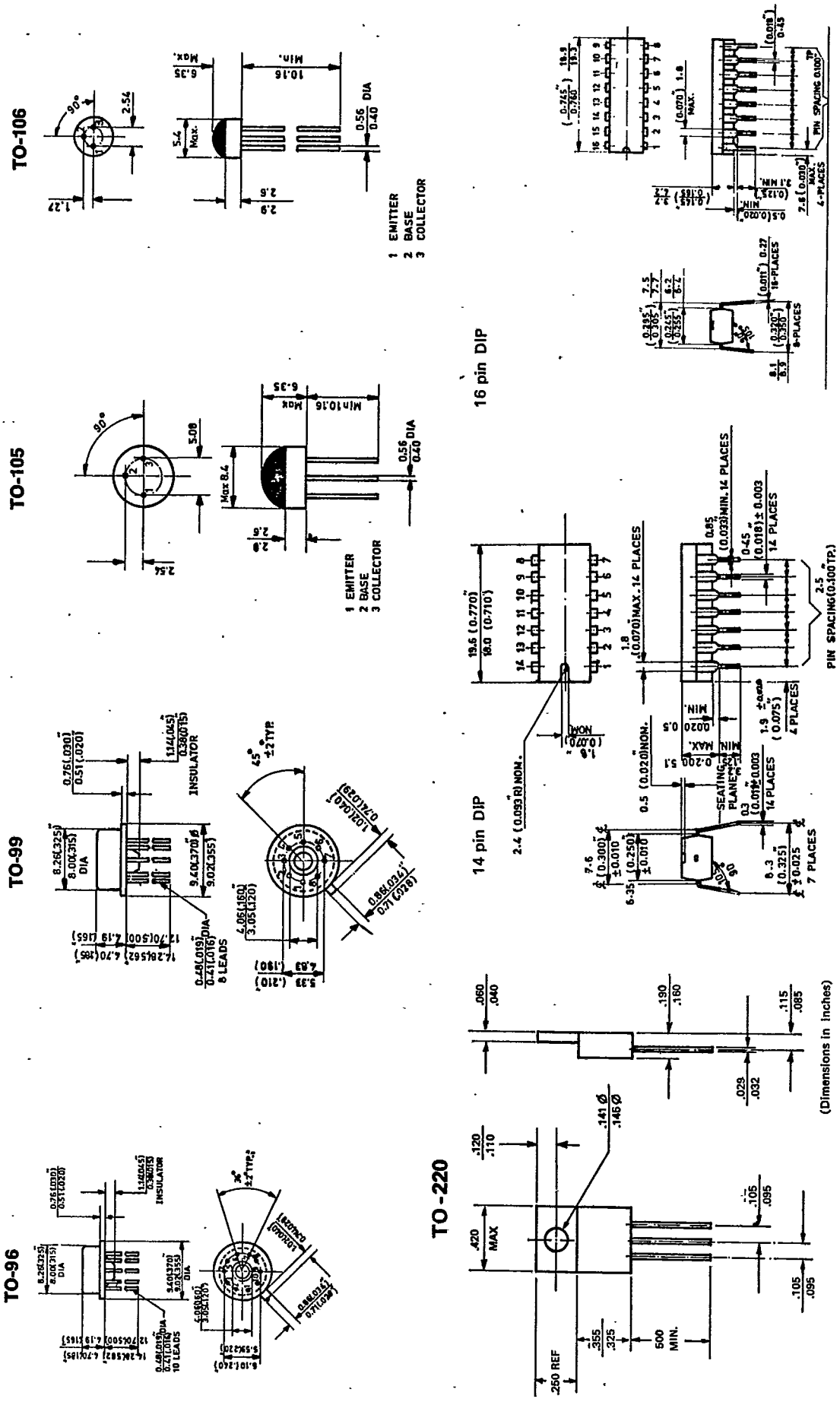
E & B ARE INTERCHANGED FOR SOME DEVICES

TO-92



(Dimensions in inches)

Note : Dimensions in mm unless otherwise specified



Note : Dimensions in mm unless otherwise specified