

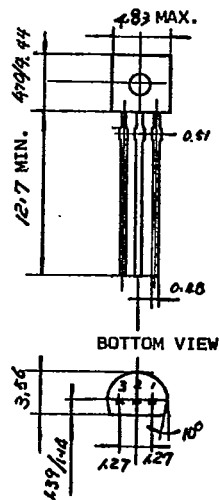
Medium Power Amplifiers and Switches

TYPE NO.	POLARITY	CASE	MAXIMUM RATINGS			H_{FE}				$V_{CE(SAT)}$		f_T min (MHz)	Cob max (pF)	COMPLEMENTARY TYPE
			P_d (mW)	I_C (A)	V_{CEO} (V)	min	max	I_C (mA)	V_{CE} (V)	max (V)	I_C (A)			
BC 119	N	TO-39	800	1	30	40	120	150	1	0.35	0.15	40	25	BC 139
BC 138	N	TO-39	800	1	30	35	—	100	10	1.5	1	40	25	—
BC 139	P	TO-39	700	0.5	40	40	—	100	10	0.8	0.3	—	6+	BC 119
BC 140	N	TO-39	800	1	40	40	250*	100	1	1	1	50	25	BC 160
BC 141	N	TO-39	800	1	60	40	250*	100	1	1	1	50	25	BC 161
BC 142	N	TO-39	800	1	60	20	—	200	2	0.4	0.2	40	25	BC 143
BC 143	P	TO-39	800	1	60	20	—	300	1	0.6	0.2	60	20	BC 142
BC 144	N	TO-39	800	1	40	20	—	300	1	0.6	0.5	100+	20	—
BC 160	P	TO-39	800	1	40	40	250*	100	1	1	1	50	30	BC 140
BC 161	P	TO-39	800	1	60	40	250*	100	1	1	1	50	30	BC 141
BC 185	N	TO-39	700	0.5	40	40	—	100	10	0.45	0.3	200	8	—
BC 210	N	TO-18	450	0.7	25	20	120	150	1	—	—	100	8	—
BC 211	N	TO-39	800	1	40	40	250*	150	2	1	1	50	25	BC 313
BC 211A	N	TO-39	800	1	60	40	250*	150	2	1	1	50	25	BC 313A
BC 215	P	TO-18	400	0.5	30	40	300*	150	10	0.9+	0.5	150	8	—
BC 223	N	TO-92F	360	0.4	30	100	450*	50	2	0.3	0.1	100	10	—
BC 231	P	TO-92B	625	0.4	30	100	450	50	5	0.25	0.05	100	10	BC 232
BC 232	N	TO-92B	625	0.4	30	100	450	50	5	0.3	0.1	100	10	BC 231
BC 284	N	TO-18	500	0.2	40	100	600	10	10	1	0.1	50	20	—
BC 286	N	TO-39	800	1	60	20	180	500	2	1	1	150+	11+	BC 287
BC 287	P	TO-39	800	1	60	20	200	500	2	1	1	140+	18+	BC 286
BC 294	P	TO-39	600	0.6	60	100	300	150	10	0.4	0.15	100	—	—
BC 297	P	TO-18	375	1	45	75	260*	100	1	0.7	0.5	250+	8+	BC 377
BC 298	P	TO-18	375	1	25	75	260*	100	1	0.7	0.5	250+	8+	BC 378
BC 300	N	TO-39	850	1	80	40	240*	150	10	0.5	0.15	120+	10+	—
BC 301	N	TO-39	850	1	60	40	240*	150	10	0.5	0.15	120+	10+	BC 303
BC 302	N	TO-39	850	1	45	40	240*	150	10	0.5	0.15	120+	10+	BC 304
BC 303	P	TO-39	850	1	60	40	240*	150	10	0.65	0.15	100+	17+	BC 301
BC 304	P	TO-39	850	1	45	40	240*	150	10	0.65	0.15	100+	17+	BC 302
BC 310	N	TO-39	800	1	70	40	—	200	1	0.4	0.2	90+	12+	BC 311
BC 311	P	TO-39	800	1	70	40	—	200	1	0.5	0.2	200+	12+	BC 310
BC 313	P	TO-39	800	1	40	40	250*	150	2	1	1	50	30	BC 211
BC 313A	P	TO-39	800	1	60	40	250*	150	2	1	1	50	30	BC 211A
BC 327	P	TO-92F	625	0.8	45	100	630*	100	1	0.7	0.5	100+	14+	BC 337
BC 328	P	TO-92F	625	0.8	25	100	630*	100	1	0.7	0.5	100+	14+	BC 338
BC 337	N	TO-92F	625	0.8	45	100	630*	100	1	0.7	0.5	100+	10+	BC 327
BC 338	N	TO-92F	625	0.8	25	100	630*	100	1	0.7	0.5	100+	10+	BC 328
BC 340	N	TO-39	800	0.5	40	40	250*	50	5	0.4	0.15	100+	6.5+	BC 360
BC 341	N	TO-39	800	0.5	60	40	160*	50	5	0.4	0.15	100+	6.5+	BC 361
BC 342	N	TO-39	800	1	60	20	—	500	10	0.8	0.3	100+	20	BC 343
BC 343	P	TO-39	800	1	60	20	—	500	10	0.8	0.3	100	20	BC 342
BC 344	N	TO-39	800	1	80	20	—	150	10	0.8	0.15	100	20	BC 345
BC 345	P	TO-39	800	1	80	20	—	150	10	0.8	0.15	100	20	BC 344
BC 360	P	TO-39	800	0.5	40	40	250*	50	5	0.4	0.15	250+	6.5+	BC 340
BC 361	P	TO-39	800	0.5	60	40	160*	50	5	0.4	0.15	250+	6.5+	BC 341
BC 368	N	TO-92B	800	1	20	85	375	500	1	0.5	1	65+	—	BC 369
BC 369	P	TO-92B	800	1	20	85	375	500	1	0.5	1	65+	—	BC 368
BC 377	N	TO-18	375	1	45	75	500	100	1	0.7	0.5	100	12	BC 297
BC 378	N	TO-18	375	1	25	75	500*	100	1	0.7	0.5	100	12	BC 298
BC 381	P	TO-92F	625	0.2	25	60	—	2.5	5	0.25	0.05	100	10	—
BC 387	N	TO-92F	310	0.6	30	40	300	100	1	0.5	0.1	200	10	BC 388
BC 388	P	TO-92F	310	0.6	30	40	300	100	1	0.5	0.1	200	10	BC 387
BC 425	N	TO-92F	500	0.5	60	20	250	100	10	0.25	0.1	50	4+	BC 427
BC 427	P	TO-92F	500	0.5	60	20	250	100	10	0.25	0.1	50	4.7+	BC 425
BC 431	N	TO-92F	625	0.8	60	63	240*	100	1	0.7	0.5	100+	12+	BC 432

* H_{FE} groupings available + Typical value

Mechanical Outlines

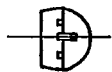
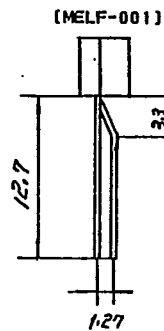
TO-92



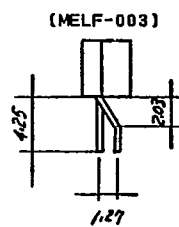
LEAD CODE	1	2	3
A	E	B	C
B	E	C	B
C	B	E	C
D	B	C	E
E*	C	E	B
F*	C	B	E
BA*	K	A	G
BF*	A	G	K
DA	B	G	D
DB	B	D	G
DC	D	G	B
DD	D	B	G
DE*	G	B	D
DF*	G	D	B
VOLTAGE REGULATOR			
D	O	G	L

*ALL LEAD FORM TO MELF-001
UNLESS OTHERWISE NOTED.

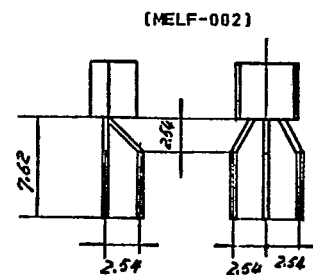
TO-92 LEAD FORM



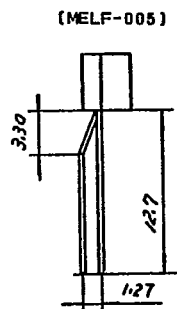
BOTTOM VIEW



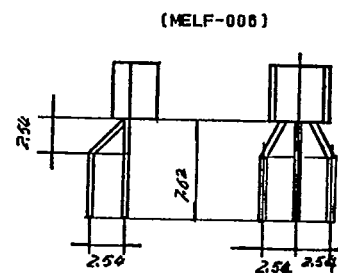
BOTTOM VIEW



BOTTOM VIEW



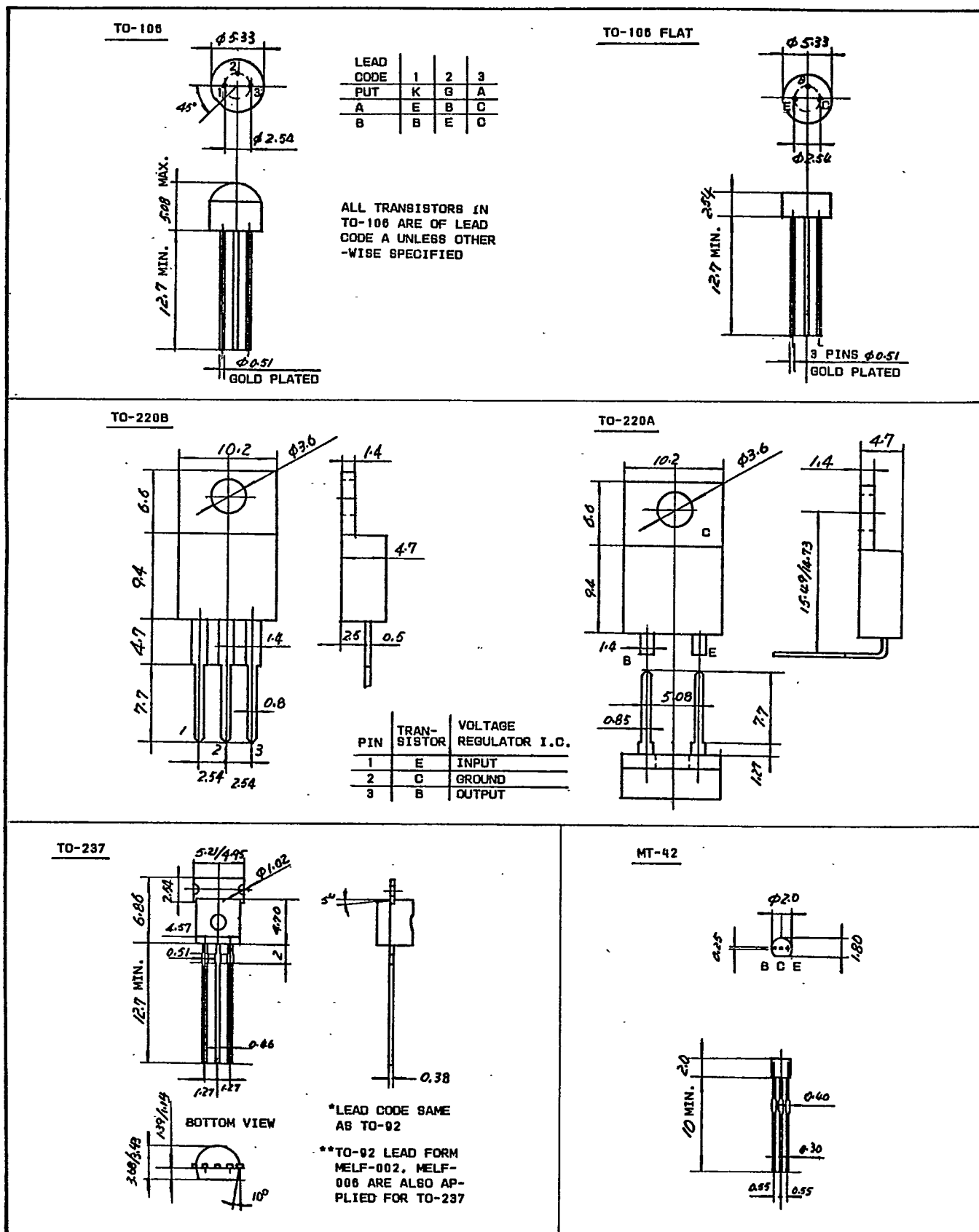
BOTTOM VIEW



BOTTOM VIEW

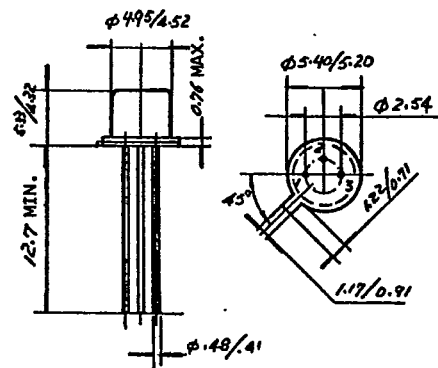
ALL DIMENSIONS IN mm

Mechanical Outlines



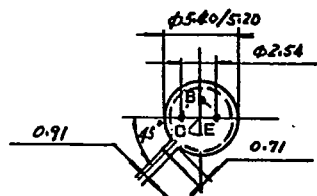
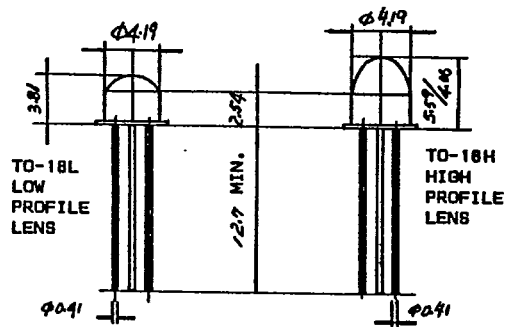
Mechanical Outlines

TO-18

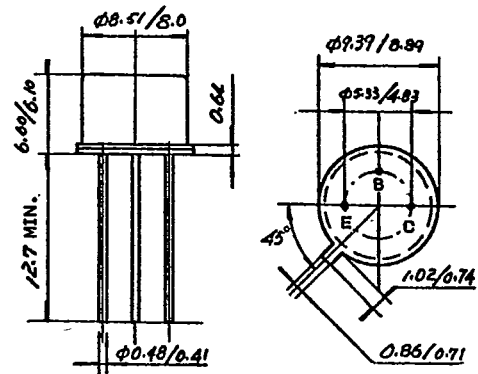


LEAD CODE	1	2	3
TRANSISTOR	E	B	C
FET	B	D	G

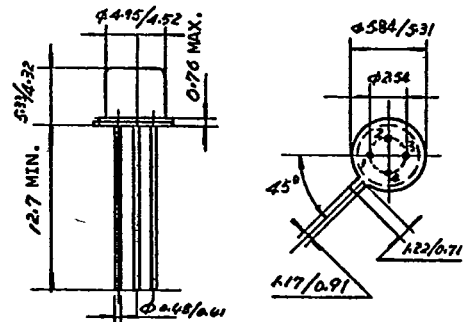
TO-18 PHOTO TRANSISTOR



TO-39

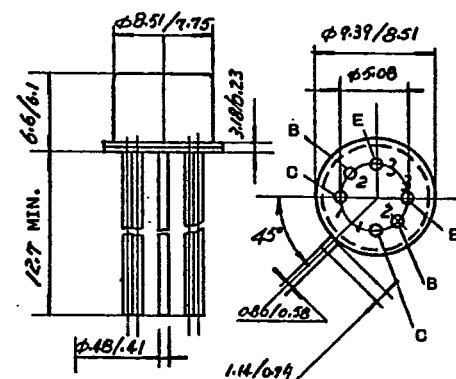


TO-72



LEAD CODE	1	2	3	4
SCS	K	GK	GA	A
J	B	E	C	CASE
G	E	B	C	CASE
DH	B	D	G	CASE

TO-78



ALL DIMENSIONS IN mm