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Technical drawing of a lead alloy casting, showing cross-sectional and side views with dimensions in mm.

Cross-sectional View (Left):

- Overall diameter: 4.1
- Distance from top edge to center of Anode: 2.54
- Distance from top edge to center of Cathode: 2.54
- Distance from top edge to center of Gate: 1.27
- Distance from center of Anode to center of Cathode: 2.54 ± 0.13
- Labels: Anode, Cathode, Gate

Side View (Right):

- Lead diameter: $5.1 \text{ } \phi$
- Distance from top edge to start of lead: 3.32
- Lead diameter: $1.6 \text{ } \phi$
- Distance from start of lead to end of lead: 5.1
- Distance from end of lead to end of casting: 12.7 min
- Lead diameter: $0.43 \text{ } \phi$

*Lead diameter is not controlled in this area. Dimensions in mm

Technical drawing of a cathode ray tube (CRT) showing cross-sectional and longitudinal views with dimensions in mm.

Labels:

- 1—Cathode
- 2—Gate
- 3—Anode

Dimensions (mm):

- Cross-section (left):
 - Top horizontal distance: 1.27
 - Distance from center to cathode: 1.27
 - Distance from center to gate: 1.54
 - Distance from center to anode: 2.54
 - Bottom horizontal distance: 4.1
 - Bottom radius: ± 0.25
- Longitudinal section (right):
 - Top horizontal distance: 1.6°
 - Top vertical distance: 5.1
 - Top vertical distance: 4.1
 - Top vertical distance: ± 0.13
 - Bottom horizontal distance: 4.7
 - Bottom vertical distance: ± 0.13
 - Bottom horizontal distance: 12.7 min
 - Bottom vertical distance: 0.43 ϕ

*Lead diameter is not controlled in this area Dimensions in mm

The technical drawing illustrates the geometry of a cathode-ray tube (CRT) with the following dimensions in millimeters:

- Top View (Left):**
 - Overall diameter: 2.54
 - Inner diameter: 1.27
 - Distance from center to the edge of the gate: 1.27
 - Distance from center to the edge of the anode: 1.27
 - Angle between the gate and anode: 45°
 - Gate thickness: 1.17
 - Anode thickness: 1.27
- Side View (Right):**
 - Overall height: 5.71
 - Distance from the base to the top of the gate: 4.95
 - Distance from the base to the top of the anode: 5.3 max
 - Distance from the base to the top of the cathode: 12.7 min
 - Distance from the base to the top of the gate (max): 0.76 max
 - Distance from the base to the top of the anode (max): 0.48 max

Labels in the top view: 1—Cathode, 2—Gate, 3—Anode.

Dimensions in mm

1-6A Up to 65W TO-220AB Plastic Packages

Device Type	Polarity	Max Ratings at Tcase = 25°C						Characteristics Tcase = 25°C							fT min MHz
		VCO V	VCEO V	VEBO V	IC A	Ptot W	hFE			VCE(sat)					
							IC A	min. max.		IC A	IB V	max. V			
TIP29	NPN	40	40	5	1	30	0.2	40	—	1.0	0.125	0.7	3		
TIP29A	NPN	60	60	5	1	30	0.2	40	—	1.0	0.125	0.7	3		
TIP29B	NPN	80	80	5	1	30	0.2	40	—	1.0	0.125	0.7	3		
TIP29C	NPN	100	100	5	1	30	0.2	40	—	1.0	0.125	0.7	3		
TIP30	PNP	40	40	5	1	30	0.2	40	—	1.0	0.125	0.7	3		
TIP30A	PNP	60	60	5	1	30	0.2	40	—	1.0	0.125	0.7	3		
TIP30B	PNP	80	80	5	1	30	0.2	40	—	1.0	0.125	0.7	3		
TIP30C	PNP	100	100	5	1	30	0.2	40	—	1.0	0.125	0.7	3		
TIP31	NPN	40	40	5	3	40	1.0	25	—	3.0	0.375	1.2	3		
TIP31A	NPN	60	60	5	3	40	1.0	25	—	3.0	0.375	1.2	3		
TIP31B	NPN	80	80	5	3	40	1.0	25	—	3.0	0.375	1.2	3		
TIP31C	NPN	100	100	5	3	40	1.0	25	—	3.0	0.375	1.2	3		
TIP32	PNP	40	40	5	3	40	1.0	25	—	3.0	0.375	1.2	3		
TIP32A	PNP	60	60	5	3	40	1.0	25	—	3	0.375	1.2	3		
TIP32B	PNP	80	80	5	3	40	1.0	25	—	3	0.375	1.2	3		
TIP32C	PNP	100	100	5	3	40	1.0	25	—	3	0.375	1.2	3		
TIP41	NPN	40	40	5	6	65	3.0	15	75	6	0.6	1.5	3		
TIP41A	NPN	60	60	5	6	65	3.0	15	75	6	0.6	1.5	3		
TIP41B	NPN	80	80	5	6	65	3.0	15	75	6	0.6	1.5	3		
TIP41C	NPN	100	100	5	6	65	3.0	15	75	6	0.6	1.5	3		
TIP42	PNP	40	40	5	6	65	3.0	15	75	6	0.6	1.5	3		
TIP42A	PNP	60	60	5	6	65	3.0	15	75	6	0.6	1.5	3		
TIP42B	PNP	80	80	5	6	65	3.0	15	75	6	0.6	1.5	3		
TIP42C	PNP	100	100	5	6	65	3.0	15	75	6	0.6	1.5	3		

10-25A Up to 125W TO3 Plastic Package

Device Type	Polarity	Max Ratings at Tcase = 25°C					Characteristics Tcase = 25°C						ft min MHZ
		V _{CB0} V	V _{CEO} V	V _{EB0} V	cont IC	P _{tot} W	hFE		V _{CE(sat)}				
							IC	A min. max.	IC	IB	max V V		
TIP33	NPN	40	40	5	10	80	3	20 100	10	2.5	4	3	
TIP33A	NPN	40	40	5	10	80	3	20 100	10	2.5	4	3	
TIP33B	NPN	80	80	5	10	80	3	20 100	10	2.5	4	3	
TIP33C	NPN	100	100	5	10	80	3	20 100	10	2.5	4	3	
TIP34	PNP	40	40	5	10	80	3	20 100	10	2.5	4	3	
TIP34A	PNP	60	60	5	10	80	3	20 100	10	2.5	4	3	
TIP34B	PNP	80	80	5	10	80	3	20 100	10	2.5	4	3	
TIP34C	PNP	100	100	5	10	80	3	20 100	10	2.5	4	3	
TIP35	NPN	40	40	5	25	125	15	10 50	25	5	4	3	
TIP35A	NPN	40	40	5	25	125	15	10 50	25	5	4	3	
TIP35B	NPN	80	80	5	25	125	15	10 50	25	5	4	3	
TIP35C	NPN	100	100	5	25	125	15	10 50	25	5	4	3	
TIP36	PNP	40	40	5	25	125	15	10 50	25	5	4	3	
TIP36A	PNP	60	60	5	25	125	15	10 50	25	5	4	3	
TIP36B	PNP	80	80	5	25	125	15	10 50	25	5	4	3	
TIP36C	PNP	100	100	5	25	125	15	10 50	25	5	4	3	
TIP3055	NPN	100	70	7	15	90	4	20 70	4	0.4	1.1	3	
TIP2955	PNP	100	70	7	15	90	4	20 70	4	0.4	1.1	3	

Device Type	Cont IC	VCEO	hFE			VCE(sat)		25°C Ptot	
			min.	max.	IC	VCE	max.		@ IC
TIP47	1	250	30	150	0.3	10	1	1	40
TIP48	1	300	30	150	0.3	10	1	1	40
TIP49	1	350	30	150	0.3	10	1	1	40
TIP50	1	400	30	150	0.3	10	1	1	40

Device Type	Cont IC A	VCE0 V	hFE				VCE(sat)		25°C Ptot W
			min.	max.	IC A	VCE V	max. V	@ IC A	
TIP51	3	250	30	150	0.3	10	1.5	3	100
TIP52	3	300	30	150	0.3	10	1.5	3	100
TIP53	3	350	30	150	0.3	10	1.5	3	100
TIP54	3	400	30	150	0.3	10	1.5	3	100
*BU124	10	1350	12	—	4	10	0.5	4	50
*BU124A	10	1400	12	—	4	10	0.5	4	50

Complementary Darlingtons Plastic Package

Device Type	Polarity				hFE			Ratings at T case = 25°C				VCE(sat)		
		VCBO	VCEO	VEBO				cont.	IC A	Ptot W	Package			
		V	V	V	IC	A min.	max.					IC	IB	V
TIP110	NPN	60	80	5	2	500	—	2	50	50	TO-220AB	—	—	—
TIP111	NPN	80	80	5	2	500	—	2	50	50	TO-220AB	—	—	—
TIP112	NPN	100	100	5	2	500	—	2	50	50	TO-220AB	—	—	—
TIP115	PNP	60	60	5	2	500	—	2	50	50	TO-220AB	—	—	—
TIP116	PNP	80	80	5	2	500	—	2	50	50	TO-220AB	—	—	—
TIP117	PNP	100	100	5	2	500	—	2	50	50	TO-220AB	—	—	—
TIP120	NPN	60	60	5	3	1000	—	5	65	65	TO-220AB	—	—	—
TIP121	NPN	80	80	5	3	1000	—	5	65	65	TO-220AB	—	—	—
TIP122	NPN	100	100	5	3	1000	—	5	65	65	TO-220AB	—	—	—
TIP125	PNP	60	60	5	3	1000	—	5	65	65	TO-220AC	—	—	—
TIP126	PNP	80	80	5	3	1000	—	5	65	65	TO-220AB	—	—	—
TIP127	PNP	100	100	5	3	1000	—	5	65	65	TO-220AB	—	—	—
TIP130	NPN	60	60	5	4	1000	15000	8	70	70	TO-220AB	—	—	—
TIP131	NPN	80	80	5	4	1000	15000	8	70	70	TO-220AB	—	—	—
TIP132	NPN	100	100	5	4	1000	15000	8	70	70	TO-220AB	—	—	—
TIP135	PNP	60	60	5	4	1000	15000	8	70	70	TO-220AB	—	—	—
TIP136	PNP	80	80	5	4	1000	15000	8	70	70	TO-220AB	—	—	—
TIP137	PNP	100	100	5	4	1000	15000	8	70	70	TO-220AB	—	—	—
TIP140	NPN	60	60	5	10	500	—	10	125	TO3	—	—	—	—
TIP141	NPN	80	80	5	10	500	—	10	125	TO3	—	—	—	—
TIP142	NPN	100	100	5	10	500	—	10	125	TO3	—	—	—	—
TIP145	PNP	60	60	5	10	500	—	10	125	TO3	—	—	—	—
TIP146	PNP	80	80	5	10	500	—	10	125	TO3	—	—	—	—
TIP147	PNP	100	100	5	10	500	—	10	125	TO3	—	—	—	—
TIP160A	NPN	200	200	5	5	200	—	5	125	TO3	—	—	—	—
TIP161A	NPN	300	300	5	5	200	—	5	125	TO3	—	—	—	—
TIP162A	NPN	400	400	5	5	200	—	5	125	TO3	—	—	—	—
BU180*	NPN	320	—	8	—	—	—	10	50	TO3	—	4	0.02	1.5
BU180A*	NPN	400	—	8	—	—	—	10	50	TO3	—	4	0.02	1.5

* FAST TURN OFF $t_f = 0.5 \mu\text{sec typ.}$
 Δ HIGH FORWARD AND REVERSE ENERGY (122.5 mJ and 1.8 mJ)