

Silicon Controlled Rectifiers (SCR's)

Type Selection Charts

RCA Types	Current			Voltage V _{DRM} V _{RRM} V	Max. Gate Char.		Switch Time		RCA Types	Current			Voltage V _{DRM} V _{RRM} V	Max. Gate Char.		Switch Time	
	I _T (RMS) A	I _{TSM} 50/60 Hz A	Temp. T _C °C		I _{GT} mA	V _{GT} V	t _{gt} μs	t _q μs		I _T (RMS) A	I _{TSM} 50/60 Hz A	Temp. T _C °C		I _{GT} mA	V _{GT} V	t _{gt} μs	t _q μs
C106 Family SENSITIVE-GATE TYPES									S122 Family STANDARD TYPES								
3.5-A Types TO-202AB Pack.									8-A Types TO-220AB Pack.								
C106Q				15					S122F				50				
C106Y				30					S122A				100				
C106F				50					S122B				200				
C106A				100					S122C				300				
C106B	3.5	18.5/20	45	200	0.2	0.8	2.5	100	S122D	8	85/100	75	400	25	1.5	2.5	35
C106C				300					S122E				500				
C106D				400					S122M				600				
C106E				500					S122S				700				
C106M				600													
C107 Family SENSITIVE-GATE TYPES									S206 Family SENSITIVE-GATE TYPES								
3.14-A Types TO-202AB Pack.									4-A Types TO-220AB Pack.								
C107Q				15					S206Q				15				
C107Y				30					S206Y				30				
C107F				50					S206F				50				
C107A				100					S206A				100				
C107B	3.14	14/15	45	200	0.5	0.8	2.5	100	S206B	4	28/35	85	200	0.2	0.8	25	100
C107C				300					S206C				300				
C107D				400					S206D				400				
C107E				500					S206E				500				
C107M				600					S206M				600				
C108 Family SENSITIVE-GATE TYPES									S206Q Family SENSITIVE-GATE TYPES								
5-A Types TO-202AB Pack.									4-A Types TO-220AB Pack.								
C108Q				15					S2061Q				15				
C108Y				30					S2061Y				30				
C108F				50					S2061F				50				
C108A				100					S2061A				100				
C108B	5	28/30	45	200	0.2	0.8	2.5	100	S2061B	4	28/35	85	200	0.5	0.8	25	100
C108C				300					S2061C				300				
C108D				400					S2061D				400				
C108E				500					S2061E				500				
C108M				600					S2061M				600				
S106 Family SENSITIVE-GATE TYPES									S206Q Family SENSITIVE-GATE TYPES								
4-A Types TO-202AB Pack.									4-A Types TO-220AB Pack.								
S106Q				15					S2062Q				15				
S106Y				30					S2062Y				30				
S106F				50					S2062F				50				
S106A				100					S2062A				100				
S106B	4	17/20	60	200	0.2	0.8	2.5	100	S2062B	4	28/35	85	200	2	0.8	25	100
S106C				300					S2062C				300				
S106D				400					S2062D				400				
S106E				500					S2062E				500				
S106M				600					S2062M				600				
S107 Family SENSITIVE-GATE TYPES									S220 Family STANDARD TYPES								
4-A Types TO-202AB Pack.									2-A Types TO-8 Pack.								
S107Q				15					2N3528				200				
S107Y				30					2N3529	2	50/60	75	400	15	2	1.5	50
S107F				50					2N4102				600				
S107A				100													
S107B	4	17/20	60	200	0.5	0.8	2.5	100									
S107C				300													
S107D				400													
S107E				500													
S107M				600													
S260 Family STANDARD TYPES									S260 Family STANDARD TYPES								
7-A Types "Low-Profile" TO-5 Pack.									7-A Types "Low-Profile" TO-5 Pack.								
S260B				200					S2600B				200				
S260D	7	85/100	60	400	15	1.5	2	50	S2600D	7	85/100	60	400	15	1.5	2	50
S260M				600					S2600M				600				

Package Designations



H-967

JEDEC DO-1/
DO-210AA



H-1167

JEDEC
DO-4/
DO-203MA



H-1113R1

JEDEC DO-5/
DO-203MB



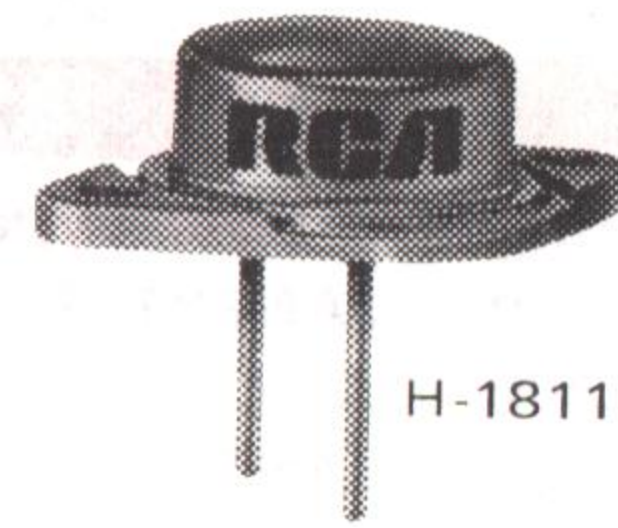
H-1695

JEDEC
DO-15/
DO-204AB



H-1026

TO-1
Two-Lead



H-1811

2N6032 2N6033
Modified TO-3
(0.60-In.-Dia. Pins)



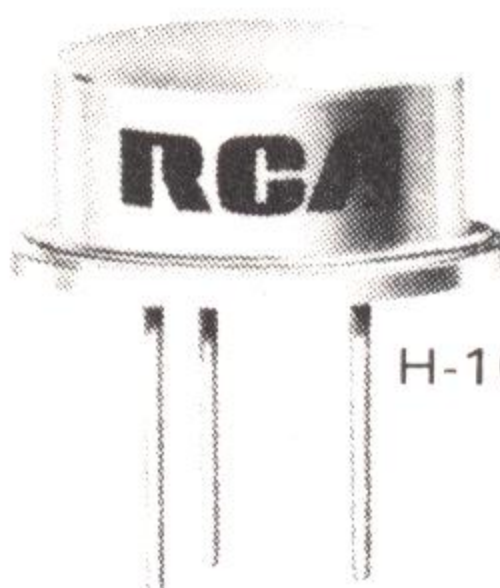
H-1570

JEDEC TO-3/
TO-204MA



H-1627

2N5575 2N5578
Modified TO-3
(0.060-In.-Dia. Pins)



H-1015

JEDEC TO-8



H-1380

JEDEC TO-5/
TO-205MA



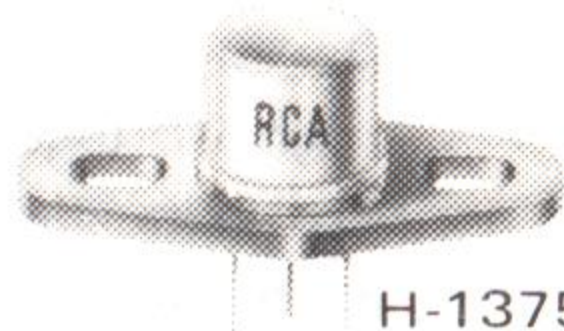
H-1599

TO-5
Low-Profile



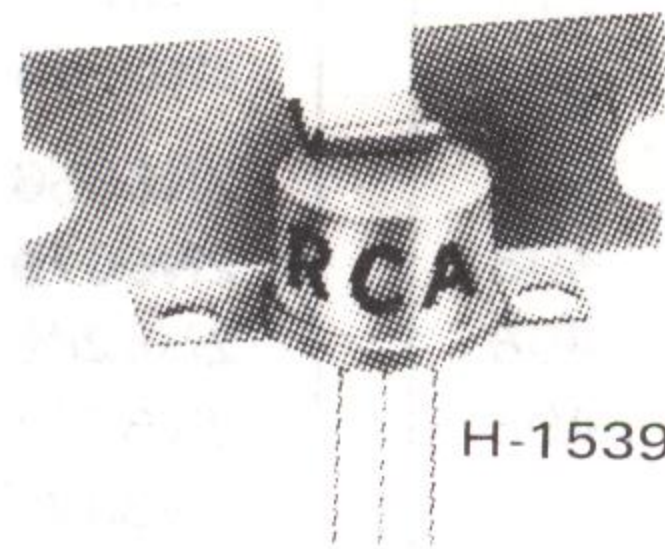
H-1381

JEDEC
TO-39/TO-
205MD



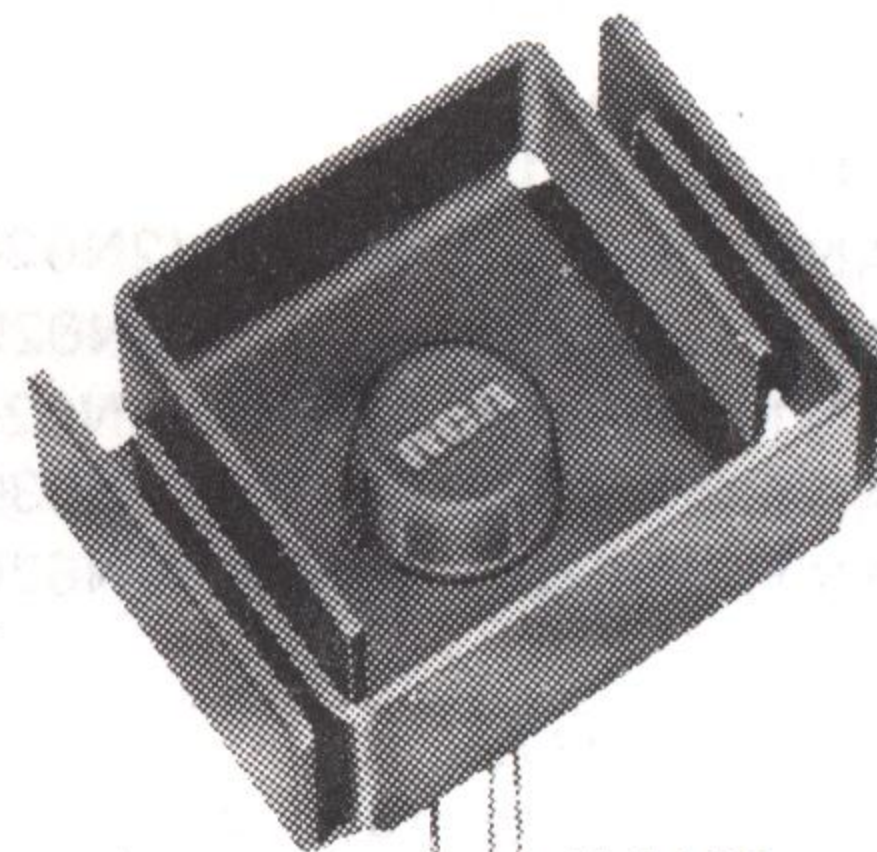
H-1375

TO-39/TO-5
with Flange



H-1539

TO-5
with Heat Spreader



H-1468

TO-39/TO-5
with Heat Radiator



H-1642

"Plastic TO-5"



H-1756

"Plastic TO-5"
with Heat Clip



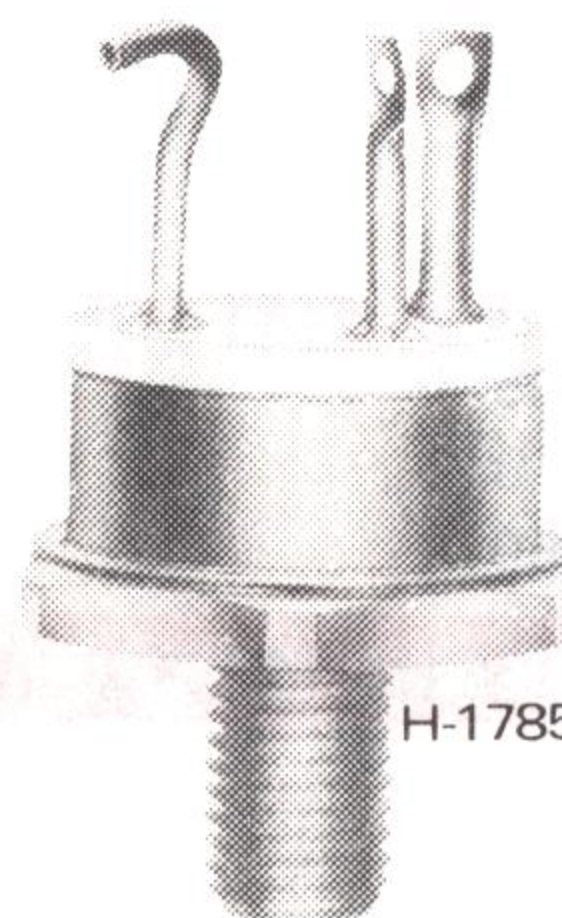
H-1612

JEDEC TO-48/
TO-209MA



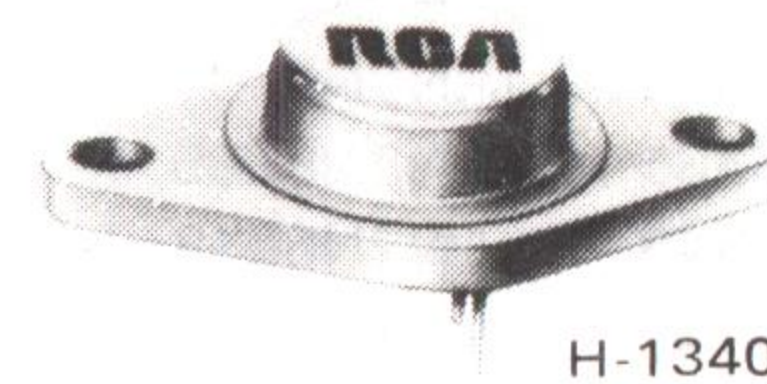
H-1307

JEDEC TO-60/
TO-212MA



H-1785

JEDEC TO-63/
TO-211MF

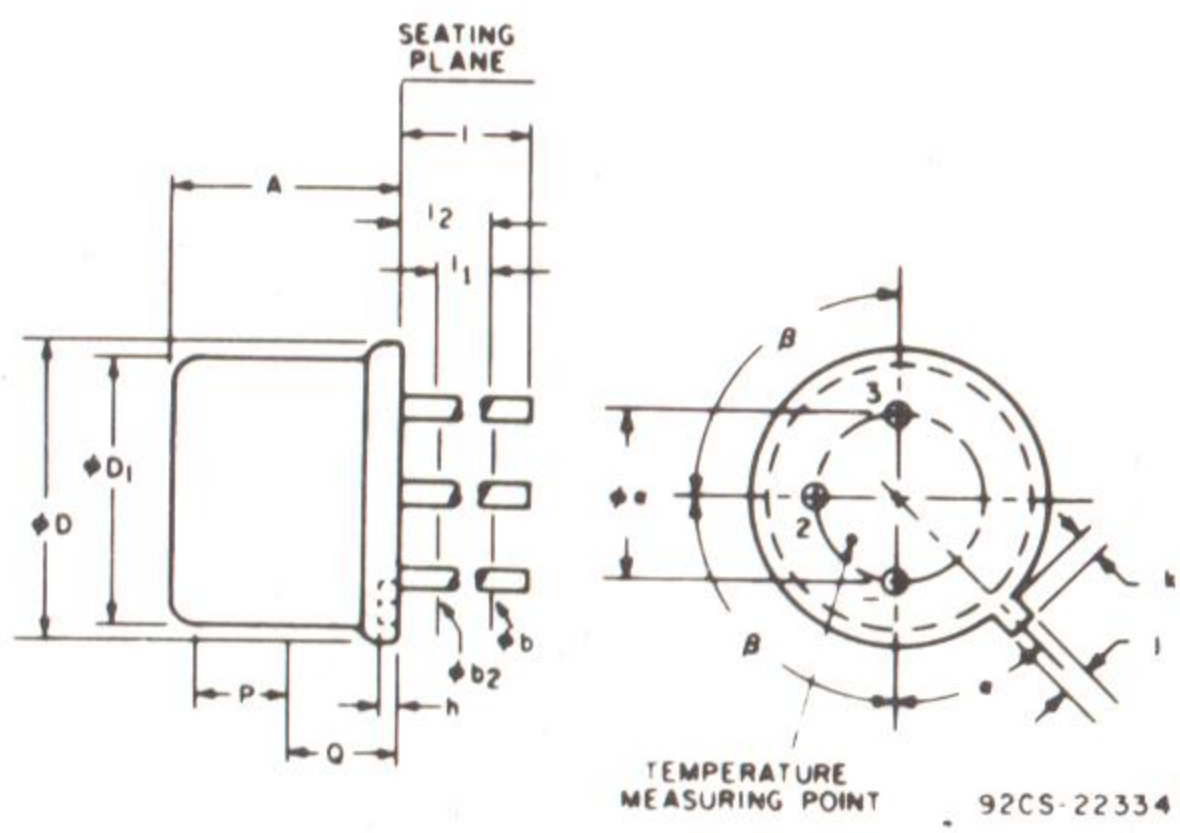


H-1340

JEDEC TO-66/
TO-213MA

Dimensional Outlines

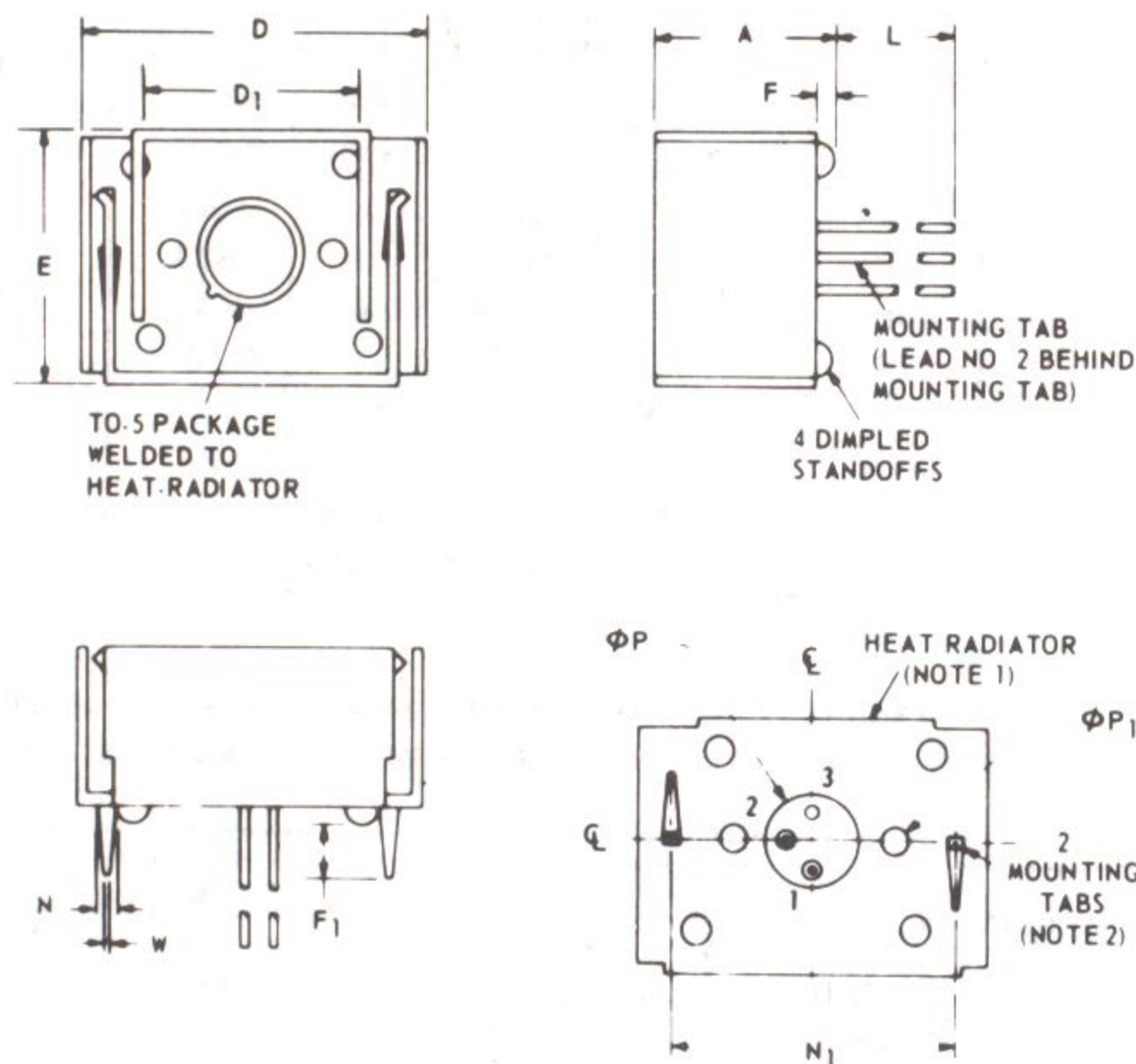
TO-5/TO-205MA TO-39/TO-205MD



SYMBOL	INCHES		MILLIMETERS		NOTES
	MIN.	MAX.	MIN.	MAX.	
phi a	0.190	0.210	4.83	5.33	
A	0.240	0.260	6.10	6.60	
phi b	0.016	0.021	0.406	0.533	2
phi b2	0.016	0.019	0.406	0.483	2
phi D	0.350	0.370	8.89	9.40	
phi D1	0.305	0.335	8.00	8.51	
h	0.009	0.041	0.229	1.04	
j	0.028	0.034	0.711	0.864	
k	0.029	0.040	0.737	1.02	3
L	TO-5		38.10		2
L	TO-39		12.70		2
I1		0.050		1.27	2
I2	0.250		6.35		2
P	0.100		2.54		1
Q					4
alpha	45° NOMINAL				
beta	90° NOMINAL				

- Note 1: This zone is controlled for automatic handling. The variation in actual diameter within this zone shall not exceed 0.010 in. (0.254 mm).
- Note 2: (Three Leads) phi b2 applies between I1 and I2. phi b applies between I2 and I1. Diameter is uncontrolled in I1.
- Note 3: Measured from maximum diameter of the actual device.
- Note 4: Details of outline in this zone optional.

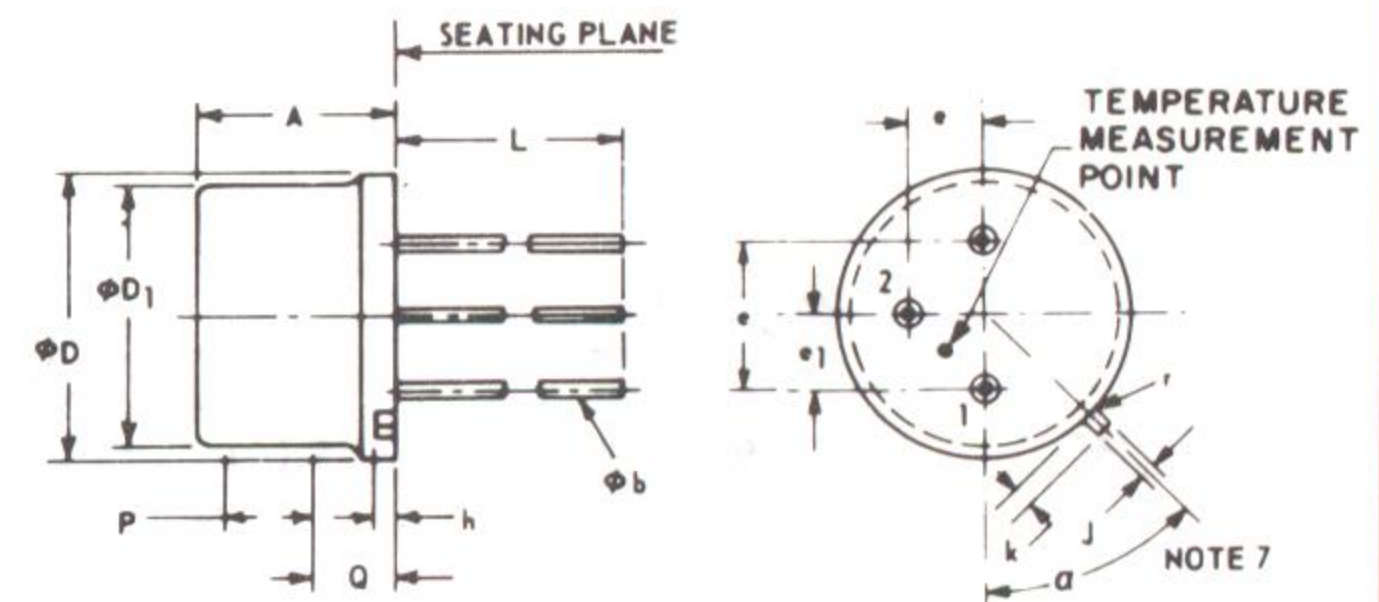
TO-39/TO-5 WITH HEAT RADIATOR



SYMBOL	INCHES		MILLIMETERS		NOTES
	MIN.	MAX.	MIN.	MAX.	
A	-	0.630	-	16.00	
D	1.205	1.235	30.61	31.37	
D1	0.775	0.785	19.69	19.93	
E	0.875	0.905	22.22	22.99	
F	0.040	0.055	1.02	1.40	
F1	0.160	0.195	4.06	4.95	
L	long lead		35.81		
L	short lead		10.41		
phi P	0.295	0.305	7.493	7.747	
phi P1	0.093	0.095	2.362	2.413	
N	0.048	0.062	1.21	1.57	
N1	0.998	1.002	25.349	25.450	3
W	0.048	0.052	1.219	1.320	

- NOTES:
- 0.035 C.R.S., finish—electroless nickel plate.
 - Recommended hole size for printed-circuit board is 0.070 in. (1.78 mm) dia.
 - Measured at bottom of heat-radiator.

"LOW-PROFILE TO-5"

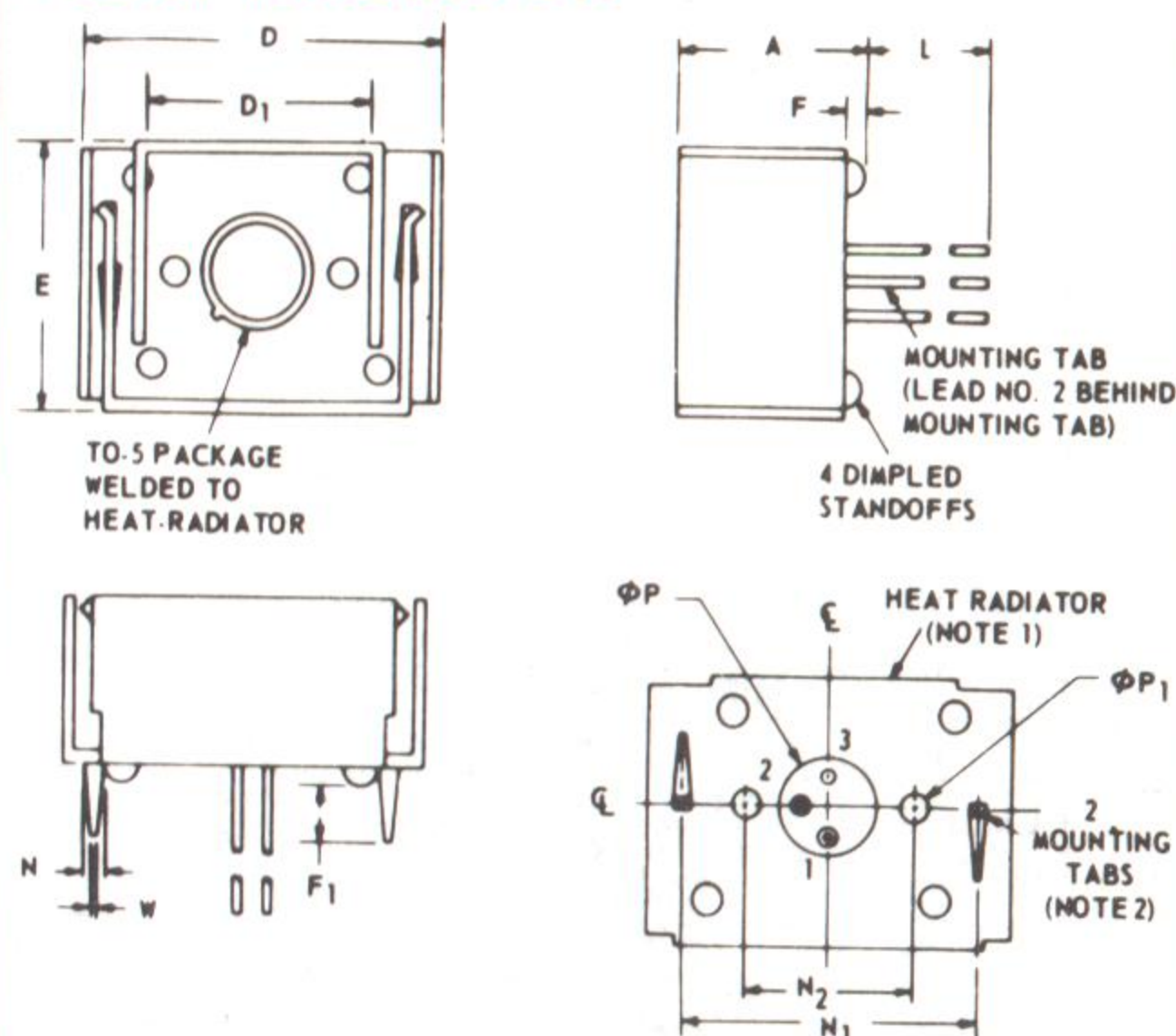


- NOTES:
- This zone is controlled for automatic handling. The variation in actual diameter within the zone shall not exceed .012 in. (.279 mm).
 - (Three Leads) phi b applies between seating plane and 1.015 in. (25.78 mm).
 - Measured from maximum diameter of the actual device.
 - Leads having maximum diameter .021 in. (.533 mm) measured at the seating plane of the device shall be within .007 in. (.178 mm) of their true positions relative to the maximum-width tab.

SYMBOL	INCHES		MILLIMETERS		NOTES
	MIN.	MAX.	MIN.	MAX.	
A	.160	.180	4.06	4.57	
phi b	.017	.021	.432	.533	2
phi D	.355	.366	9.017	9.296	
phi D1	.323	.335	8.204	8.51	
e	.190	.210	4.83	5.33	
e1	.100 TRUE POSITION		2.54 TRUE POSITION		4,5
h	.015	.035	.381	.889	
j	.028	.035	.711	.889	5
k	.029	.045	.737	1.14	3,5
L	.985	1.015	25.02	25.78	2
P	.100		2.54		1
Q					6
r		.007		.179	
alpha	42°	48°			5,7

5. The device may be measured by direct methods or by the gage and gaging procedure described on gage drawing GS-1 of JEDEC publication 12E, May 1964.
6. Details of outline in this zone optional.
7. Tab centerline.

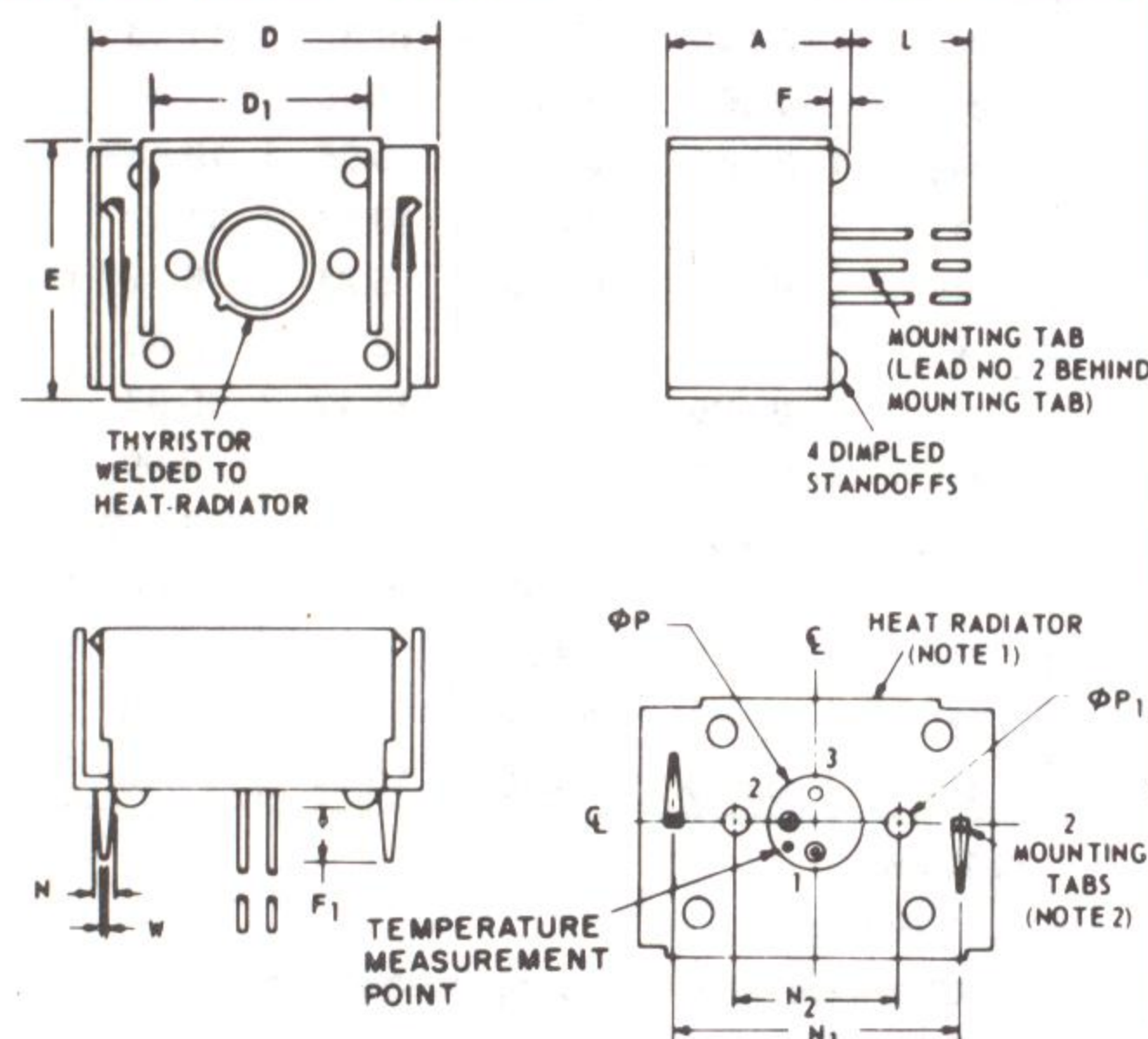
"LOW-PROFILE TO-5" WITH HEAT RADIATOR



SYMBOL	INCHES		MILLIMETERS		NOTES
	MIN.	MAX.	MIN.	MAX.	
A	-	.630	-	16.00	
D	1.205	1.235	30.61	31.37	
D1	.745	.755	18.923	19.177	
E	.875	.905	22.22	22.99	
F	.040	.055	1.02	1.40	
F1	.170	.225	4.32	5.72	
L	.885	-	22.48	-	
phi P	.295	.305	7.493	7.747	
phi P1	.093	.095	2.362	2.413	
N	.048	.062	1.21	1.57	
N1	.998	1.002	25.349	25.450	3
N2	.687	.689	17.45	17.50	3
W	.048	.052	1.219	1.320	

- NOTES:
- 0.035 C.R.S., finish: electroless nickel plate
 - Recommended hole size for printed-circuit board is 0.070 in. (1.78 mm) dia.
 - Measured at bottom of heat-radiator

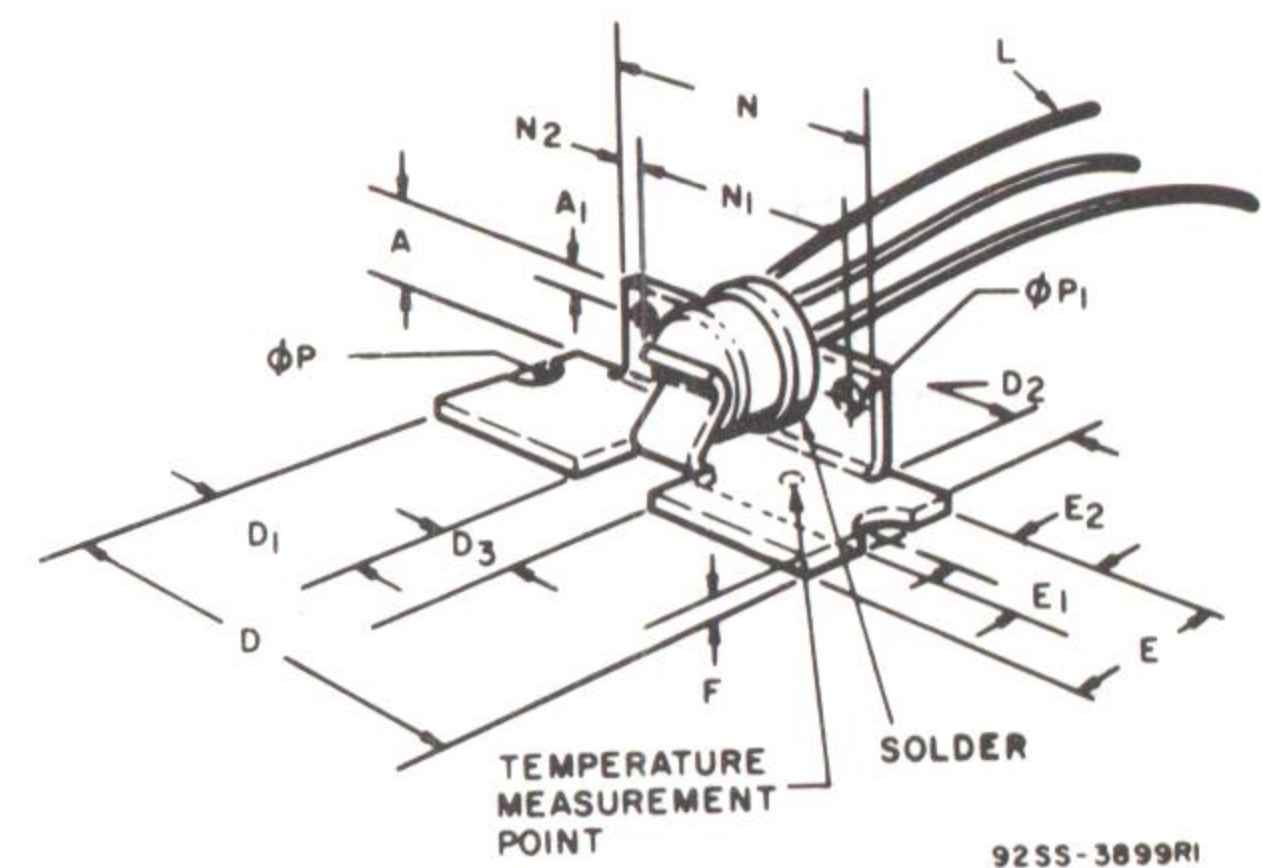
"MOD. TO-5" WITH HEAT RADIATOR



SYMBOL	INCHES		MILLIMETERS		NOTES
	MIN.	MAX.	MIN.	MAX.	
A	-	.630	-	16.00	
D	1.205	1.235	30.61	31.37	
D1	.745	.755	18.923	19.177	
E	.875	.905	22.22	22.99	
F	.040	.055	1.02	1.40	
F1	.170	.225	4.32	5.72	
L	.920	-	23.37	-	
phi P	.295	.305	7.493	7.747	
phi P1	.093	.095	2.362	2.413	
N	.048	.062	1.21	1.57	
N1	.998	1.002	25.349	25.450	3
N2	.687	.689	17.45	17.50	3
W	.048	.052	1.219	1.320	

- NOTES:
- 0.035 C.R.S., finish: electroless nickel plate
 - Recommended hole size for printed-circuit board is 0.070 in. (1.78 mm) dia.
 - Measured at bottom of heat radiator

"LOW-PROFILE TO-5" WITH HEAT SPREADER



SYMBOL	INCHES		MILLIMETERS		NOTES
	MIN.	MAX.	MIN.	MAX.	
A	0.22		5.58		
A1	0.75		19.05		
D	1.0		25.4		
D1	0.406		10.31		
D2	0.14	0.16	3.55	4.06	
D3	0.188		4.77		
E	0.40		10.16		
E1	0.32		8.12		
E2	0.156		3.96		
F	0.02		0.05		
L	0.95		24.13		1
N	0.69	0.71	17.52	18.03	
N1	0.55		13.97		
N2	0.75		19.05		
phi P	0.072 Rad.		1.83 Rad.		
phi P1	0.094 Dia.		2.39 Dia.		2

- NOTES:
- Min. length, 3 leads.
 - Two holes.