

Silicon NPN Transistor

40636

Power Transistor

95V / 15A

DATASHEET

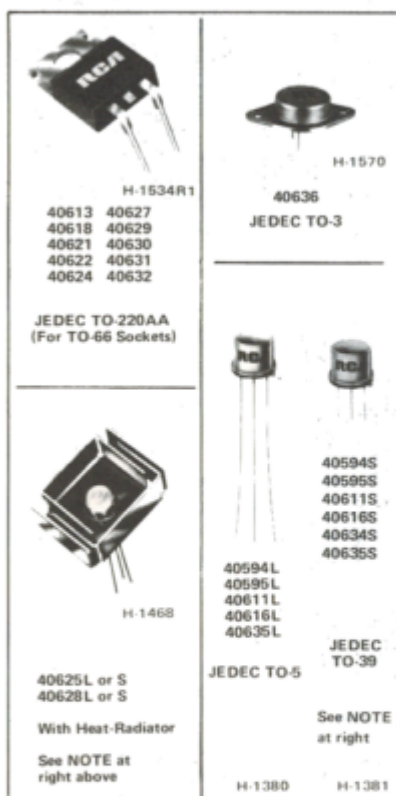
OEM –RCA

Source: RCA Databook 1975

File No. 358

Power Transistors

40594 40595 40611 40613
 40616 40618 40621 40622
 40624 40625 40627-40632
 40634-40636



RCA-40594, 40595, 40611, 40613, 40616, 40618, 40621, 40622, 40624, 40627-40632, and 40634-40636, inclusive are silicon n-p-n and p-n-p transistors intended for driver and output stages in high-fidelity amplifier circuits.

These devices have been specifically designed for use in complementary-and-quasi-complementary-symmetry audio-amplifier circuits.

Silicon Transistors for Audio-Frequency Linear-Amplifier Applications

Transistors for Driver Applications:

N-P-N Types

40594 40616 40628
 40611 40625 40635

P-N-P Types

40595 40634

NOTE:

These devices are available with either 1½-inch leads (TO-5 package) or ½-inch leads (TO-39 package). The longer-lead versions are specified by suffix "L" after the type number; the shorter-lead versions are specified by suffix "S" after the type number.

Transistors for Output Applications:

N-P-N Types

40613 40624 40631
 40618 40627 40632
 40621 40629 40636
 40622 40630

TERMINAL CONNECTIONS FOR TYPES IN TO-220AA PACKAGE

Lead No. 1 — Base
 Stub — Do not use stub as tie point.
 Lead No. 3 — Emitter
 Mounting Flange — Collector

TERMINAL CONNECTIONS FOR 40636

Pin 1 — Base
 Pin 2 — Emitter
 Case — Collector
 Mounting Flange — Collector

TERMINAL CONNECTIONS FOR TYPES IN TO-5 OR TO-39 PACKAGE

Lead 1 — Emitter
 Lead 2 — Base
 Case, Lead 3 — Collector

TERMINAL CONNECTIONS FOR 40625 AND 40628

Lead 1 — Emitter
 Lead 2 — Base
 Heat-Radiator, Lead 3 — Collector

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40594-5, 40611, 40613, 40616, 40618
40621-2, 40624-5, 40627-32, 40634-36

MAXIMUM RATINGS, Absolute-Maximum Values:

RCA Type	$V_{CE0}^{(sus)}$ V	$V_{CER}^{(sus)*}$ V	V_{EBO} V	I_C A	I_B A	$P_T - W^*$		Temp. Range (Storage & Operating)		
						$T_C = 25^\circ C$	$T_A = 25^\circ C$	$^\circ C$		
								-	+	+
40594	-	95	4	2	1	10	1.2	65	to	200
40595	-	-95	-4	-2	-1	10	1.2	65	to	200
40611	25	-	2.5	0.7	0.2	5	1	65	to	200
40613	25	-	5	4	2	36	1.8	65	to	150
40616	32	-	2.5	0.7	0.2	5	1	65	to	200
40618	30	-	5	4	2	36	1.8	65	to	150
40621	32	-	5	4	2	36	1.8	65	to	150
40622	40	-	5	4	2	36	1.8	65	to	150
40624	45	-	5	6	3	50	1.8	65	to	150
40625	45	-	7	1	-	-	3.5	65	to	200
40627	55	-	5	6	3	50	1.8	65	to	150
40628	55	-	7	1	-	-	3.5	65	to	200
40629	-	35	5	4	2	36	1.8	65	to	150
40630	-	40	5	4	2	36	1.8	65	to	150
40631	-	45	5	4	2	36	1.8	65	to	150
40632	-	60	5	6	3	50	1.8	65	to	150
40634	-	-75	-7	-0.7	-0.2	5	1	65	to	200
40635	-	75	7	0.7	0.2	5	1	65	to	200
40636	-	95	7	15	7	115	-	65	to	200

* $R_{BE} \approx 68 \Omega$ (40612, 40623, & 40626) $\approx 100 \Omega$ (40594, 40595, 40629, 40630, 40631, 40632, 40633, 40634, 40635, & 40636)• P_T at temperatures above $25^\circ C$, derate linearly to 0 watts at maximum temperature
(e.g. +100, +150, or +200 $^\circ C$).ELECTRICAL CHARACTERISTICS, At Case Temperature = $25^\circ C$

RCA Type	I_{CBO} Max.		I_{CER} Max.				I_{EBO} Max.			$V_{CE0}^{(sus)}$ Min.	
	μA	V_{CB} V	μA	mA	V_{CE} V	R_{BE} Ω	μA	mA	V_{EB} V	V	I_C mA
40611	0.5	15	-	-	-	-	-	1	2.5	25	100
40613	2	25	-	-	-	-	-	1	5	25	100
40616	0.5	15	-	-	-	-	-	1	5	32	100
40618	2	30	-	-	-	-	-	1	5	30	100
40621	0.5	30	-	-	-	-	-	1	5	32	100
40622	-	-	500	-	40	100	-	1	5	40	100
40624	-	-	500	-	45	100	-	1	5	45	100
40625	0.25	60	-	-	-	-	1	-	5	45	100
40627	-	-	500	-	55	100	-	1	5	55	100
40628	0.25	60	-	-	-	-	1	-	5	55	100
40629	-	-	-	0.5	30	100	-	1	5	-	-

40594-5, 40611, 40613, 40616, 40618
40621-2, 40624-5, 40627-32, 40634-36

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ELECTRICAL CHARACTERISTICS, At Case Temperature = 25°C (Cont'd)

RCA Type	I _{CBO} Max.		I _{CER} Max.				I _{EBO} Max.			V _{CE0(sus)} Min.	
	μ A	V	μ A	mA	V _{CE} V	R _{BE} Ω	μ A	mA	V _{EB} V	V	I _C mA
40630	—	—	—	0.5	35	100	—	1	5	—	—
40631	—	—	—	0.5	40	100	—	1	5	—	—
40632	—	—	—	0.5	50	100	—	1	5	—	—
40634	—	—	— 10	—	— 65	100	—	— 0.1	— 4	—	—
40635	—	—	10	—	65	100	—	0.1	4	—	—
40636	—	—	—	0.5	85	100	—	1	4	—	—
40594	—	—	10	—	85	100	—	0.1	4	—	—
40595	—	—	— 10	—	— 85	100	—	— 0.1	— 4	—	—

V	V _{CE(sus)} Min.		V _{CE(sat)} Max.			V _{BE} Max.			h _{FE}				RCA Type
	I _C mA	R _{BE} Ω	V	I _C mA	I _B mA	V	V _{CE} V	I _C mA	Min.	Max.	I _C mA	V _{CE} V	
—	—	—	—	—	—	—	—	—	70	500	50	4	40611
—	—	—	—	—	—	1.3	4	1000	30	120	1000	4	40613
—	—	—	—	—	—	—	—	—	70	500	50	4	40616
—	—	—	—	—	—	—	—	—	30	120	1000	4	40618
—	—	—	1	1500	150	1.5	4	1500	25	100	1500	4	40621
—	—	—	1	1500	150	1.5	4	1500	25	100	1500	4	40622
—	—	—	1	2500	250	1.7	4	2500	20	100	2500	4	40624
—	—	—	0.5	150	15	1	4	150	100	300	150	10	40625
—	—	—	1	2500	250	1.7	4	2500	20	100	2500	4	40627
—	—	—	0.5	150	15	1	4	150	100	300	150	10	40628
35	100	100	1	1000	100	1.3	4	1000	20	70	1000	4	40629
40	100	100	1	1500	150	1.4	4	1500	20	70	1500	4	40630
45	100	100	1	2000	200	1.5	4	2000	20	70	2000	4	40631
60	100	100	1	3000	300	1.4	4	3000	20	70	3000	4	40632
— 75	— 100	100	— 0.8	— 150	— 15	— 1.4	— 4	— 150	50	250	— 150	— 4	40634
75	100	100	0.8	150	15	1.4	4	150	50	250	150	4	40635
95	200	100	1	4000	400	1.4	4	4000	20	70	4000	4	40636
95	100	100	0.8	300	30	1.4	4	300	70	350	300	4	40594
— 95	— 100	100	— 0.8	— 300	— 30	— 1.4	— 4	— 300	70	350	— 300	— 4	40595