

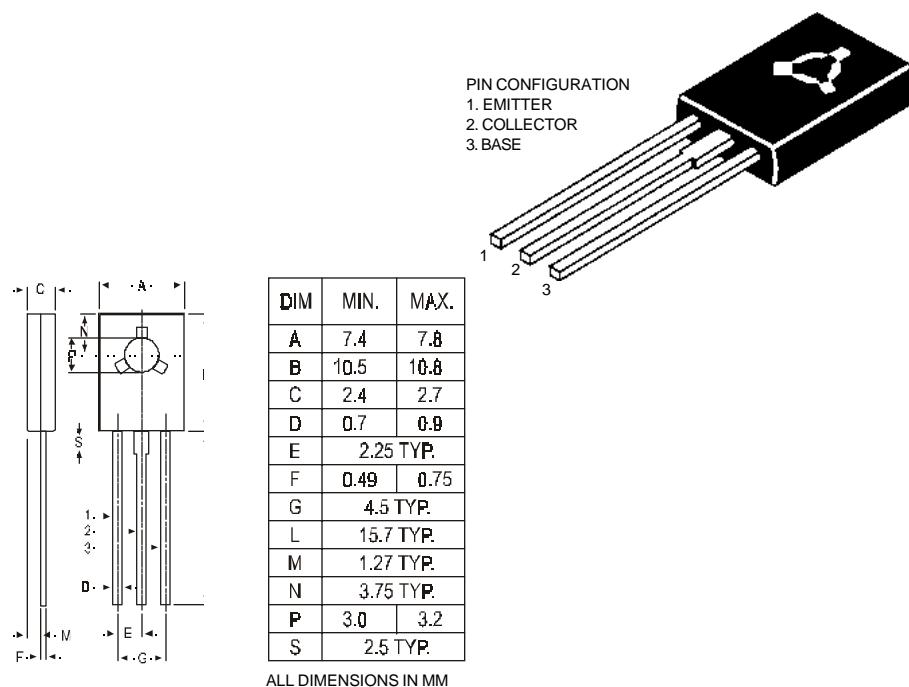
TO-126 (SOT-32) Plastic Package

CSD794, CSD794A

CSD794, 794A NPN PLASTIC POWER TRANSISTOR

Complementary CSB744, 744A

Audio frequency Power Amplifier



ABSOLUTE MAXIMUM RATINGS

	794	794A
Collector-base voltage (open emitter)	V_{CBO} max. 70	70 V
Collector-emitter voltage (open base)	V_{CEO} max. 45	60 V
Collector current (DC)	I_C max.	3.0 A
Total power dissipation up to $T_C = 25^\circ\text{C}$	P_{tot} max.	10 W
Junction temperature	T_j max.	150 °C
Collector-emitter saturation voltage	V_{CEsat} max.	2.0 V
$I_C = 1.5\text{A}; I_B = 0.15\text{ A}$		
D.C. current gain	h_{FE} min.	60
$I_C = 0.5\text{ A}; V_{CE} = 5\text{ V}$		320

RATINGS (at $T_A=25^\circ\text{C}$ unless otherwise specified)

Limiting values

	794	794A
Collector-base voltage (open emitter)	V_{CBO} max. 70	70 V
Collector-emitter voltage (open base)	V_{CEO} max. 45	60 V

CSD794, CSD794A

<i>Emitter-base voltage (open collector)</i>	V_{EBO}	<i>max.</i>	5.0	<i>V</i>
<i>Collector current (DC)</i>	I_C	<i>max.</i>	3.0	<i>A</i>
<i>Collector current (Pulse) (1)</i>	I_C	<i>max.</i>	5.0	<i>A</i>
<i>Base current (DC)</i>	I_B	<i>max.</i>	0.6	<i>A</i>
<i>Total power dissipation up to $T_C = 25^\circ\text{C}$</i>	P_{tot}	<i>max.</i>	10	<i>W</i>
<i>Total power dissipation up to $T_A = 25^\circ\text{C}$</i>	P_{tot}	<i>max.</i>	1.0	<i>W</i>
<i>Junction temperature</i>	T_j	<i>max.</i>	150	$^\circ\text{C}$
<i>Storage temperature</i>	T_{stg}		-65 to +150	$^\circ\text{C}$

CHARACTERISTICS

$T_{amb} = 25^\circ\text{C}$ unless otherwise specified

		794	794A
<i>Collector cutoff current</i>			
$I_E = 0; V_{CB} = 45\text{V}$	I_{CBO}	<i>max.</i>	1.0 μA
<i>Emitter cut-off current</i>			
$I_C = 0; V_{EB} = 3\text{V}$	I_{EBO}	<i>max.</i>	1.0 μA
<i>Breakdown voltages</i>			
$I_C = 1\text{ mA}; I_B = 0$	V_{CEO}	<i>min.</i> 45	60 <i>V</i>
$I_C = 1\text{ mA}; I_E = 0$	V_{CBO}	<i>min.</i> 70	70 <i>V</i>
$I_E = 1\text{ mA}; I_C = 0$	V_{EBO}	<i>min.</i>	5.0 <i>V</i>
<i>Saturation voltages</i>			
$I_C = 1.5\text{ A}; I_B = 0.15\text{ A}$	V_{CEsat}^*	<i>max.</i>	2.0 <i>V</i>
	V_{BEsat}^*	<i>max.</i>	2.0 <i>V</i>
<i>D.C. current gain</i>			
$I_C = 20\text{ mA}; V_{CE} = 5\text{ V}^*$	h_{FE}^*	<i>min.</i>	30
$I_C = 0.5\text{ A}; V_{CE} = 5\text{ V}^{**}$	h_{FE}^*	<i>min.</i>	60
		<i>max.</i>	320
<i>Output capacitance at $f = 1\text{MHz}$</i>			
$I_E = 0, V_{CB} = 10\text{V}$	C_o	<i>typ.</i>	40 pF
<i>Transition frequency</i>			
$I_C = 0.1\text{ A}; V_{CE} = 5\text{ V}$	f_T	<i>typ.</i>	60 MHz

* Pulse test: Pulse width $\leq 350\text{ }\mu\text{s}$; duty cycle $\leq 2\%$. Pulsed.

(1) $P_W \leq 10\text{ ms}$, Duty cycle $\leq 50\%$.

** h_{FE} classification: R: 60-120 O: 100-200 Y: 160-320

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