

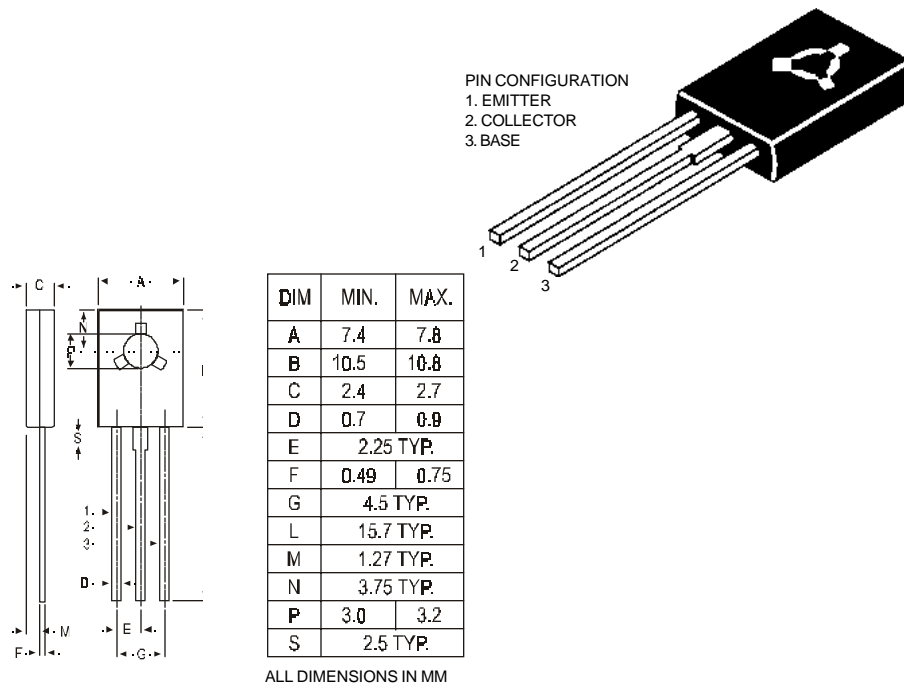
TO-126 (SOT-32) Plastic Package

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 $T_C = 25^\circ C$	P_{tot}	max.	10 W
Junction temperature	T_j	max.	150 $^\circ C$
Collector-emitter saturation voltage $I_C = 1.5A; I_B = 0.15 A$	V_{CEsat}	max.	2.0 V
D.C. current gain $I_C = 0.5 A; V_{CE} = 5 V$	h_{FE}	min.	60
		max.	320

RATINGS (at $T_A=25^\circ C$ 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

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

CHARACTERISTICS

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

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

* Pulse test: Pulse width $\leq 350\ \mu\text{s}$; 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**

Disclaimer

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