

## Silicon NPN Power Transistors

## 2SD794 2SD794A

## DESCRIPTION

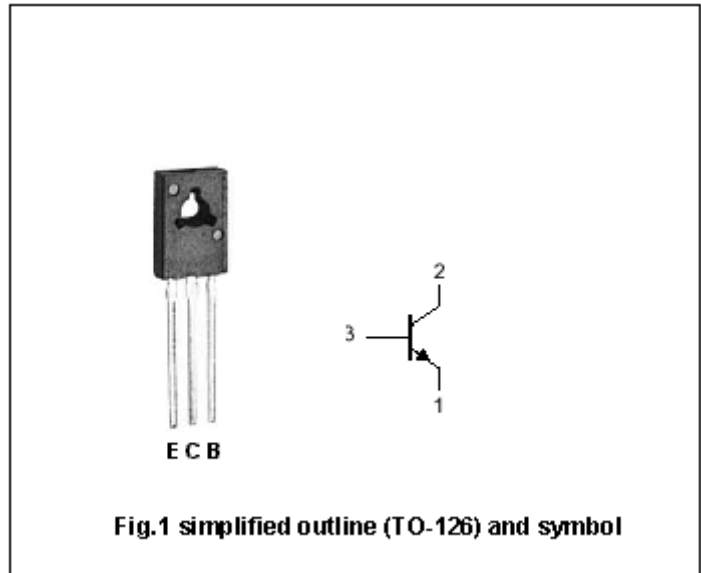
- With TO-126 package
- Complement to type 2SB744/744A
- High current 3A
- Excellent  $h_{FE}$  linearity

## APPLICATIONS

- For use in audio frequency amplifier and general purpose applications

## PINNING

PIN	DESCRIPTION
1	Emitter
2	Collector;connected to mounting base
3	Base

Absolute maximum ratings( $T_a=25^\circ\text{C}$ )

SYMBOL	PARAMETER	CONDITIONS	VALUE	UNIT
$V_{CBO}$	Collector-base voltage	Open emitter	70	V
$V_{CEO}$	Collector-emitter voltage	2SD794	45	V
		2SD794A	60	
$V_{EBO}$	Emitter-base voltage	Open collector	5	V
$I_C$	Collector current (DC)		3	A
$I_{CM}$	Collector current-Peak		5	A
$I_B$	Base current (DC)		0.6	A
$P_C$	Collector power dissipation	$T_a=25^\circ\text{C}$	1	W
		$T_C=25^\circ\text{C}$	10	
$T_j$	Junction temperature		150	$^\circ\text{C}$
$T_{stg}$	Storage temperature		-55~150	$^\circ\text{C}$

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## CHARACTERISTICS

T<sub>j</sub>=25°C unless otherwise specified

SYMBOL	PARAMETER		CONDITIONS	MIN	TYP.	MAX	UNIT
V <sub>(BR)CEO</sub>	Collector-emitter breakdown voltage	2SD794	I <sub>C</sub> =10mA; I <sub>B</sub> =0	45			V
		2SD794A		60			
V <sub>CEsat</sub>	Collector-emitter saturation voltage		I <sub>C</sub> =1.5A; I <sub>B</sub> =0.15A		0.3	2.0	V
V <sub>BEsat</sub>	Base-emitter saturation voltage		I <sub>C</sub> =1.5A; I <sub>B</sub> =0.15A		0.8	2.0	V
I <sub>CBO</sub>	Collector cut-off current		V <sub>CB</sub> =45V; I <sub>E</sub> =0			1	μA
I <sub>EBO</sub>	Emitter cut-off current		V <sub>EB</sub> =3V; I <sub>C</sub> =0			1	μA
h <sub>FE-1</sub>	DC current gain		I <sub>C</sub> =20mA; V <sub>CE</sub> =5V	30	70		
h <sub>FE-2</sub>	DC current gain		I <sub>C</sub> =0.5A; V <sub>CE</sub> =5V	60	100	320	
f <sub>T</sub>	Transition frequency		I <sub>C</sub> =0.1A; V <sub>CE</sub> =5V		60		MHz
C <sub>OB</sub>	Collector output capacitance		f=1MHz; V <sub>CB</sub> =10V; I <sub>E</sub> =0		40		pF

◆ h<sub>FE-2</sub> Classifications

R	O	Y
60-120	100-200	160-320

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PACKAGE OUTLINE

