

## NPN SILICON POWER TRANSISTORS 2SD794, 2SD794A

**DESCRIPTION** The 2SD794, 2SD794A is an NPN general purpose transistor designed for use in Audio frequency amplifier.

- FEATURES**
- High Voltage and Large Current capacity.
  - Complementary to NEC 2SB744, 2SB744A PNP transistor.

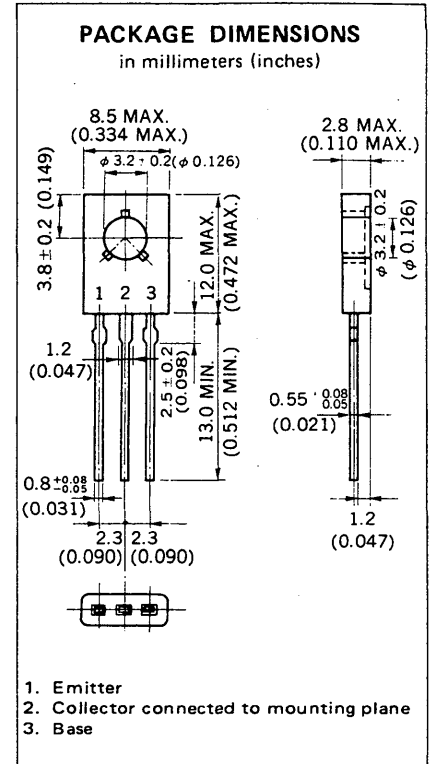
**ABSOLUTE MAXIMUM RATINGS**

**Maximum Temperatures**  
 Storage Temperature . . . . . -55 to +150 °C  
 Junction Temperature . . . . . 150 °C Maximum

**Maximum Power Dissipations**  
 Total Power Dissipation ( $T_a = 25\text{ °C}$ ) . . . . . 1.0 W  
 Total Power Dissipation ( $T_c = 25\text{ °C}$ ) . . . . . 10 W

**Maximum Voltages and Currents ( $T_a = 25\text{ °C}$ )**

	2SD794, 2SD794A		
$V_{CBO}$	Collector to Base Voltage .	70	70 V
$V_{CEO}$	Collector to Emitter Voltage . . . . .	45	60 V
$V_{EBO}$	Emitter to Base Voltage . .	5.0	5.0 V
$I_{C(DC)}$	Collector Current (DC) . .	3.0	3.0 A
$I_{C(pulse)}$	Collector Current (pulse) .	5.0	5.0 A



**ELECTRICAL CHARACTERISTICS ( $T_a = 25\text{ °C}$ )**

SYMBOL	CHARACTERISTIC	MIN.	TYP.	MAX.	UNIT	TEST CONDITIONS
$h_{FE1}$	DC Current Gain	30	70			$V_{CE} = 5.0\text{ V}, I_C = 20\text{ mA}^*$
$h_{FE2}$	DC Current Gain	60	100	320		$V_{CE} = 5.0\text{ V}, I_C = 0.5\text{ A}^*$
$f_T$	Gain Bandwidth Product		60		MHz	$V_{CE} = 5.0\text{ V}, I_C = 0.1\text{ A}$
$C_{ob}$	Output Capacitance		40		pF	$V_{CB} = 10\text{ V}, I_E = 0, f = 1.0\text{ MHz}$
$I_{CBO}$	Collector Cutoff Current			1.0	$\mu\text{A}$	$V_{CB} = 45\text{ V}, I_E = 0$
$I_{EBO}$	Emitter Cutoff Current			1.0	$\mu\text{A}$	$V_{EB} = 3.0\text{ V}, I_C = 0$
$V_{CE(sat)}$	Collector Saturation Voltage		0.3	2.0	V	$I_C = 1.5\text{ A}, I_B = 0.15\text{ A}^*$
$V_{BE(sat)}$	Base Saturation Voltage		0.8	2.0	V	$I_C = 1.5\text{ A}, I_B = 0.15\text{ A}^*$

\*Pulse Test :  $PW \leq 350\text{ }\mu\text{s}$ , Duty Cycle  $\leq 2\%$

**Classification of  $h_{FE2}$**

Rank	R	Q	P
Range	60 to 120	100 to 200	160 to 320

Test Conditions :  $V_{CE} = 5.0\text{ V}, I_C = 0.5\text{ A}$

TYPICAL CHARACTERISTICS ( $T_a = 25^\circ\text{C}$ )

