

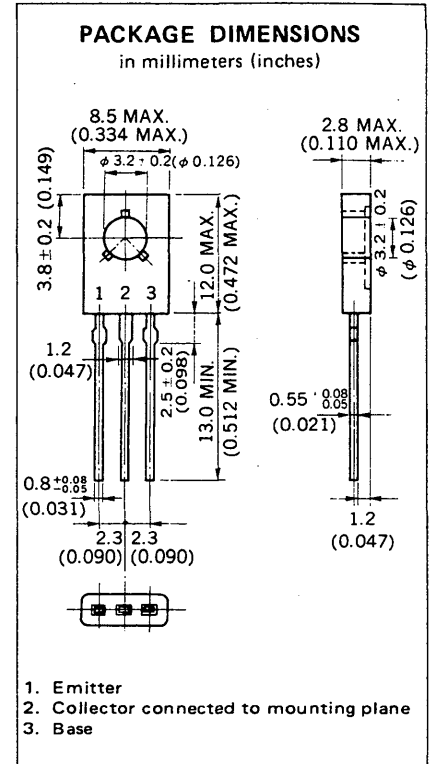
NPN SILICON POWER TRANSISTORS 2SD794, 2SD794A

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 °C)	1.0 W
Total Power Dissipation (T _c = 25 °C)	10 W
Maximum Voltages and Currents (T _a = 25 °C)	
2SD794, 2SD794A	
V _{CB0}	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 °C)

SYMBOL	CHARACTERISTIC	MIN.	TYP.	MAX.	UNIT	TEST CONDITIONS
h _{FE1}	DC Current Gain	30	70			V _{CE} = 5.0 V, I _C = 20 mA*
h _{FE2}	DC Current Gain	60	100	320		V _{CE} = 5.0 V, I _C = 0.5 A*
f _T	Gain Bandwidth Product		60		MHz	V _{CE} = 5.0 V, I _C = 0.1 A
C _{ob}	Output Capacitance		40		pF	V _{CB} = 10 V, I _E = 0, f = 1.0 MHz
I _{CB0}	Collector Cutoff Current			1.0	μA	V _{CB} = 45 V, I _E = 0
I _{EBO}	Emitter Cutoff Current			1.0	μA	V _{EB} = 3.0 V, I _C = 0
V _{CE(sat)}	Collector Saturation Voltage		0.3	2.0	V	I _C = 1.5 A, I _B = 0.15 A*
V _{BE(sat)}	Base Saturation Voltage		0.8	2.0	V	I _C = 1.5 A, I _B = 0.15 A*

*Pulse Test : PW ≤ 350 μs, Duty Cycle ≤ 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 V, I_C = 0.5 A

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

