

# isc Silicon NPN Power Transistor

## 2SD794

### DESCRIPTION

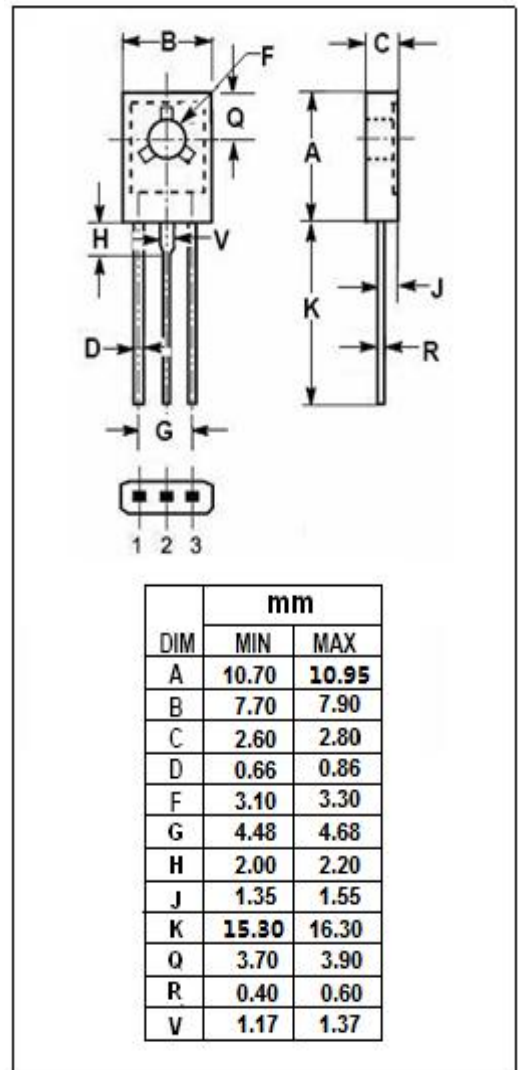
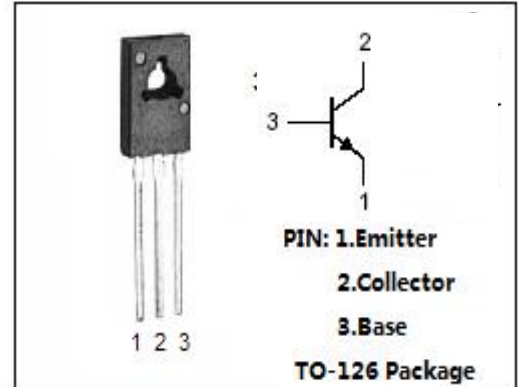
- High Collector Current  $-I_C = 3A$
- Collector-Emitter Breakdown Voltage-  
:  $V_{(BR)CEO} = 45V(\text{Min})$
- Complement to Type 2SB744
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

### APPLICATIONS

- Designed for use in audio frequency amplifier.

### ABSOLUTE MAXIMUM RATINGS( $T_a = 25^\circ\text{C}$ )

SYMBOL	PARAMETER	VALUE	UNIT
$V_{CBO}$	Collector-Base Voltage	70	V
$V_{CEO}$	Collector-Emitter Voltage	45	V
$V_{EBO}$	Emitter-Base Voltage	5	V
$I_C$	Collector Current-Continuous	3	A
$I_{CP}$	Collector Current-Pulse	5	A
$P_C$	Collector Power Dissipation @ $T_C = 25^\circ\text{C}$	10	W
	Collector Power Dissipation @ $T_a = 25^\circ\text{C}$	1	
$T_J$	Junction Temperature	150	$^\circ\text{C}$
$T_{stg}$	Storage Temperature Range	-55~150	$^\circ\text{C}$



**isc Silicon NPN Power Transistor****2SD794****ELECTRICAL CHARACTERISTICS** $T_C=25^{\circ}\text{C}$  unless otherwise specified

SYMBOL	PARAMETER	CONDITIONS	MIN	TYP.	MAX	UNIT
$V_{CE(sat)}$	Collector-Emitter Saturation Voltage	$I_C = 1.5\text{A}; I_B = 0.15\text{A}$		0.3	2.0	V
$V_{BE(sat)}$	Base-Emitter Saturation Voltage	$I_C = 1.5\text{A}; I_B = 0.15\text{A}$		0.8	2.0	V
$I_{CBO}$	Collector Cutoff Current	$V_{CB} = 45\text{V}; I_E = 0$			1.0	$\mu\text{A}$
$I_{EBO}$	Emitter Cutoff Current	$V_{EB} = 3\text{V}; I_C = 0$			1.0	$\mu\text{A}$
$h_{FE-1}$	DC Current Gain	$I_C = 20\text{mA}; V_{CE} = 5\text{V}$	30	70		
$h_{FE-2}$	DC Current Gain	$I_C = 0.5\text{A}; V_{CE} = 5\text{V}$	60	100	320	
$f_T$	Current-Gain—Bandwidth Product	$I_C = 0.1\text{A}; V_{CE} = 5\text{V}$		60		MHz
$C_{OB}$	Output Capacitance	$I_E = 0; V_{CB} = 10\text{V}, f_{test} = 1\text{MHz}$		40		pF

**◆  $h_{FE-2}$  Classifications**

R	Q	P
60-120	100-200	160-320

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