

Silicon PNP Power Transistor

2SA1694

DESCRIPTION

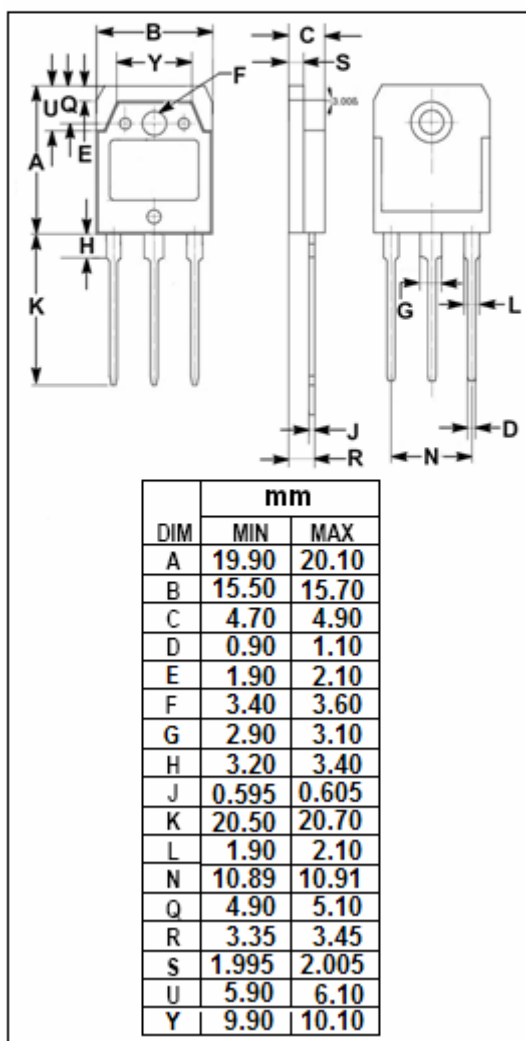
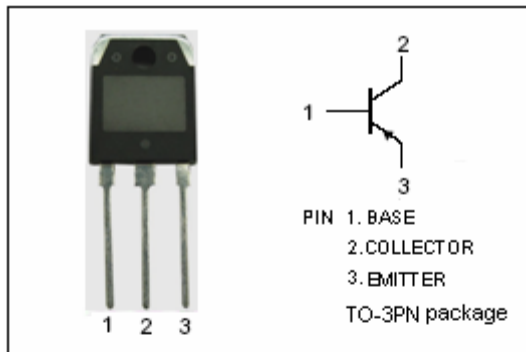
- High Collector-Emitter Breakdown Voltage-  
 $V_{(BR)CEO} = -120V(\text{Min})$
- Good Linearity of  $h_{FE}$
- Complement to Type 2SC4467

APPLICATIONS

- Designed for audio and general purpose applications

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

SYMBOL	PARAMETER	VALUE	UNIT
$V_{CBO}$	Collector-Base Voltage	-120	V
$V_{CEO}$	Collector-Emitter Voltage	-120	V
$V_{EBO}$	Emitter-Base Voltage	-6	V
$I_C$	Collector Current-Continuous	-8	A
$I_B$	Base Current-Continuous	-3	A
$P_C$	Collector Power Dissipation @ $T_C=25^\circ\text{C}$	80	W
$T_J$	Junction Temperature	150	$^\circ\text{C}$
$T_{stg}$	Storage Temperature Range	-55~150	$^\circ\text{C}$



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## ELECTRICAL CHARACTERISTICS

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

SYMBOL	PARAMETER	CONDITIONS	MIN	TYP.	MAX	UNIT
$V_{(BR)CEO}$	Collector-Emitter Breakdown Voltage	$I_C = -50\text{mA}$ ; $I_B = 0$	-120			V
$V_{CE(sat)}$	Collector-Emitter Saturation Voltage	$I_C = -3\text{A}$ ; $I_B = -0.3\text{A}$			-1.5	V
$I_{CBO}$	Collector Cutoff Current	$V_{CB} = -120\text{V}$ ; $I_E = 0$			-10	$\mu\text{A}$
$I_{EBO}$	Emitter Cutoff Current	$V_{EB} = -6\text{V}$ ; $I_C = 0$			-10	$\mu\text{A}$
$h_{FE}$	DC Current Gain	$I_C = -3\text{A}$ ; $V_{CE} = -4\text{V}$	50		180	
$C_{OB}$	Output Capacitance	$I_E = 0$ ; $V_{CB} = -10\text{V}$ ; $f = 1.0\text{MHz}$		300		pF
$f_T$	Current-Gain—Bandwidth Product	$I_E = 0.5\text{A}$ ; $V_{CE} = -12\text{V}$		20		MHz

## Switching Times

$t_{on}$	Turn-on Time	$I_C = -4\text{A}$ , $R_L = 10\ \Omega$ , $I_{B1} = -I_{B2} = -0.4\text{A}$ , $V_{CC} = -40\text{V}$		0.14		$\mu\text{s}$
$t_{stg}$	Storage Time			1.4		$\mu\text{s}$
$t_f$	Fall Time			0.21		$\mu\text{s}$

◆  $h_{FE}$  Classifications

O	P	Y
50-100	70-140	90-180