

## isc Silicon NPN Power Transistor

2SC3854

## DESCRIPTION

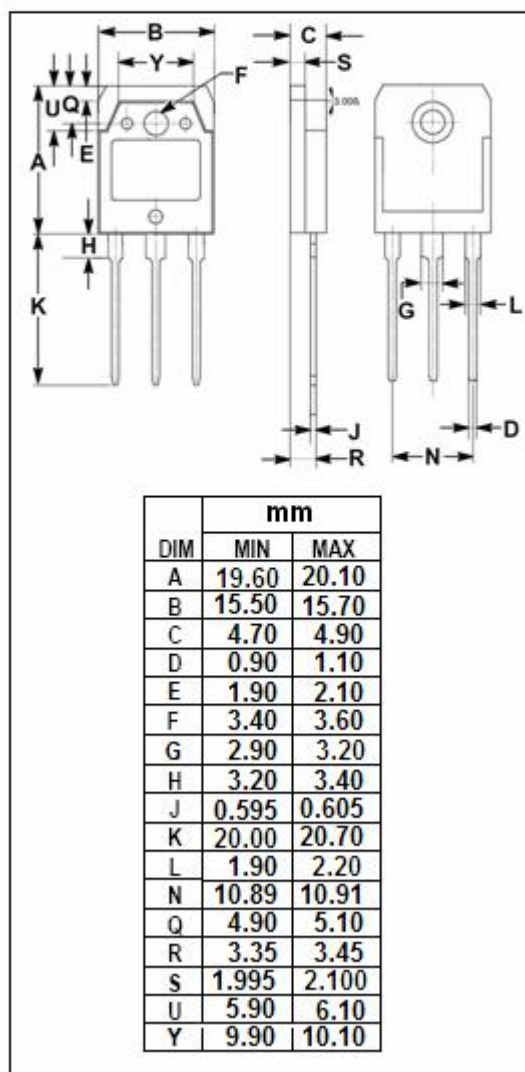
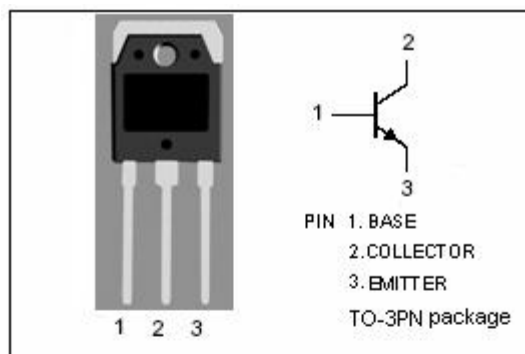
- Collector-Emitter Breakdown Voltage-  
 $V_{(BR)CEO} = 120V(\text{Min})$
- Good Linearity of  $h_{FE}$
- Complement to Type 2SA1490
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

## APPLICATIONS

- 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	$^\circ\text{C}$



**isc Silicon NPN Power Transistor****2SC3854****ELECTRICAL CHARACTERISTICS****T<sub>c</sub>=25°C unless otherwise specified**

SYMBOL	PARAMETER	CONDITIONS	MIN	TYP.	MAX	UNIT
V <sub>(BR)CEO</sub>	Collector-Emitter Breakdown Voltage	I <sub>C</sub> = 50mA ; I <sub>B</sub> = 0	120			V
V <sub>CE(sat)</sub>	Collector-Emitter Saturation Voltage	I <sub>C</sub> = 3A; I <sub>B</sub> = 0.3A			1.5	V
I <sub>CBO</sub>	Collector Cutoff Current	V <sub>CB</sub> = 120V; I <sub>E</sub> = 0			100	μ A
I <sub>EBO</sub>	Emitter Cutoff Current	V <sub>EB</sub> = 6V; I <sub>C</sub> = 0			100	μ A
h <sub>FE</sub>	DC Current Gain	I <sub>C</sub> = 3A; V <sub>CE</sub> = 4V	50			
f <sub>T</sub>	Current-Gain—Bandwidth Product	I <sub>E</sub> = -0.5A; V <sub>CE</sub> = 12V		20		MHz

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