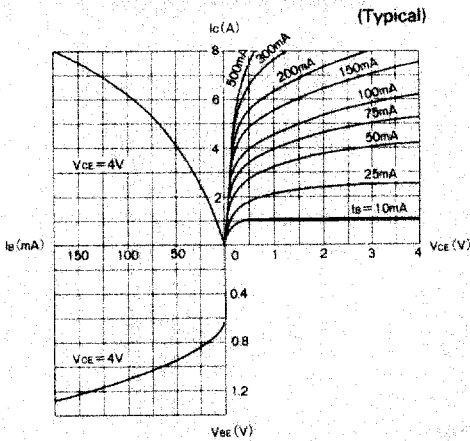


# 2SC3854

## Absolute Maximum Ratings (Ta=25°C)

Symbol	2SC3854	Unit
V <sub>CE0</sub>	160	V
V <sub>CEO</sub>	120	V
V <sub>EB0</sub>	6	V
I <sub>C</sub>	8	A
I <sub>B</sub>	3	A
P <sub>C</sub>	80 (T <sub>C</sub> = 25°C)	W
T <sub>J</sub>	150	°C
T <sub>stg</sub>	-55 to +150	°C

## Common Emitter Characteristics



## Silicon NPN Triple Diffused Planar Transistor

☆ Complement to type 2SA1490

Application Example :  
Audio and General Purpose

● Outline Drawing 2 ..... MT-100(TO3P)

## Electrical Characteristics

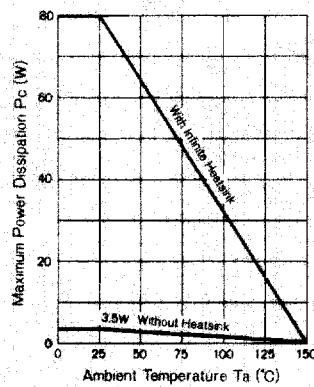
(Ta=25°C)

Symbol	Conditions	2SC3854	Unit
I <sub>CBO</sub>	V <sub>CB</sub> =160V	100max	μA
I <sub>EBO</sub>	V <sub>EB</sub> =6V	100max	μA
V <sub>(BR)CEO</sub>	I <sub>C</sub> = 50mA	120min	V
hFE	V <sub>CE</sub> =4V, I <sub>C</sub> =3A	50min	
V <sub>CE(sat)</sub>	I <sub>C</sub> = 3A, I <sub>B</sub> = 0.3A	1.5max	V
f <sub>r</sub>	V <sub>CE</sub> =12V, I <sub>E</sub> = -0.5A	20typ	MHz

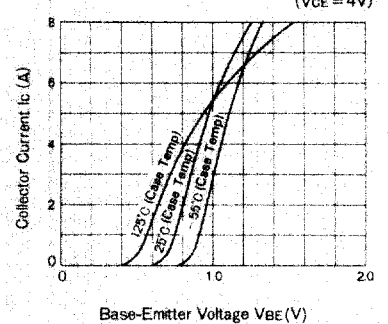
## Typical Switching Characteristics (Common Emitter)

V <sub>CC</sub> (V)	R <sub>L</sub> (Ω)	I <sub>C</sub> (A)	V <sub>BB1</sub> (V)	V <sub>BB2</sub> (V)	I <sub>B1</sub> (A)	I <sub>B2</sub> (A)	t <sub>on</sub> (μs)	t <sub>stg</sub> (μs)	t <sub>f</sub> (μs)
40	10	4	10	-5	0.4	-0.4	0.3typ	3.4typ	0.4 typ

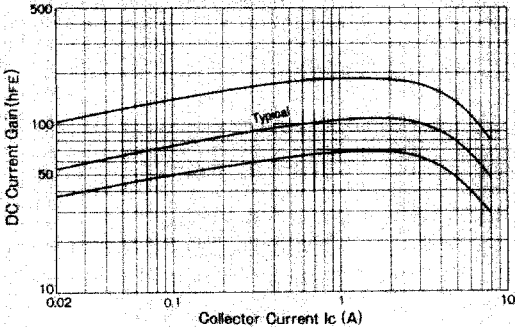
## Pc-Ta Derating



## Ic-Vbe Temperature Characteristics (Typical)

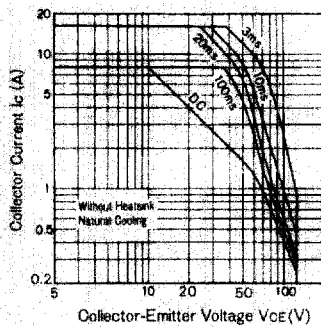


## hFE-Ic Characteristics

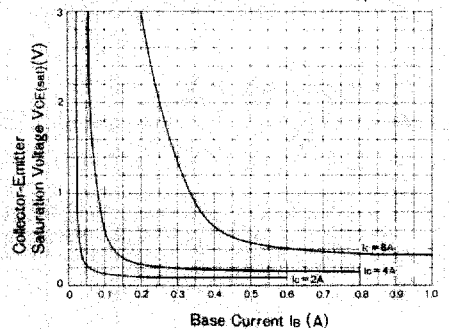


## Safe Operating Area(SOA)

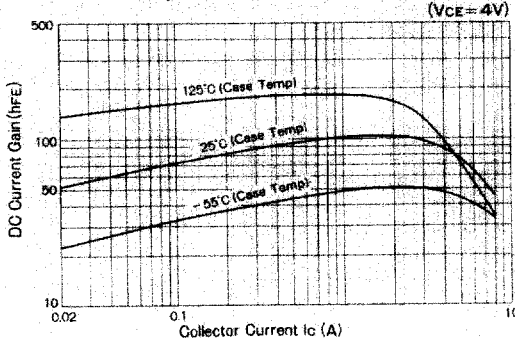
(Single Pulse)



## Vce(sat)-Ib Characteristics (Typical)



## hFE-Ic Temperature Characteristics (Typical)



## θja-t Characteristics

