

Silicon PNP Epitaxial Planar Transistor (Complement to type 2SC2837)

Application : Audio and General Purpose

## ■ Absolute maximum ratings (Ta=25°C)

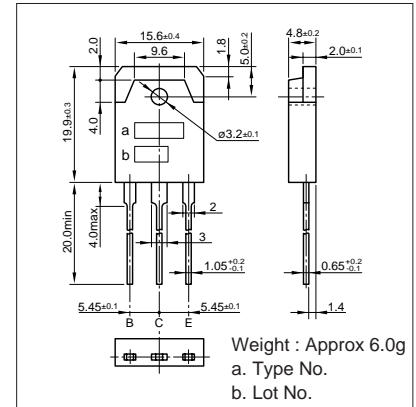
Symbol	2SA1186	Unit
V <sub>CB0</sub>	-150	V
V <sub>CE0</sub>	-150	V
V <sub>EB0</sub>	-5	V
I <sub>C</sub>	-10	A
I <sub>B</sub>	-2	A
P <sub>C</sub>	100(Ta=25°C)	W
T <sub>J</sub>	150	°C
T <sub>stg</sub>	-55 to +150	°C

## ■ Electrical Characteristics (Ta=25°C)

Symbol	Conditions	2SA1186	Unit
I <sub>CB0</sub>	V <sub>CB</sub> =-150V	-100max	μA
I <sub>EB0</sub>	V <sub>EB</sub> =-5V	-100max	μA
V <sub>(BR)CEO</sub>	I <sub>C</sub> =-25mA	-150min	V
h <sub>FE</sub>	V <sub>CE</sub> =-4V, I <sub>C</sub> =-3A	50min*	
V <sub>CE(sat)</sub>	I <sub>C</sub> =-5A, I <sub>B</sub> =-0.5A	-2.0max	V
f <sub>r</sub>	V <sub>CE</sub> =-12V, I <sub>E</sub> =1A	60typ	MHz
COB	V <sub>CB</sub> =-80V, f=1MHz	110typ	pF

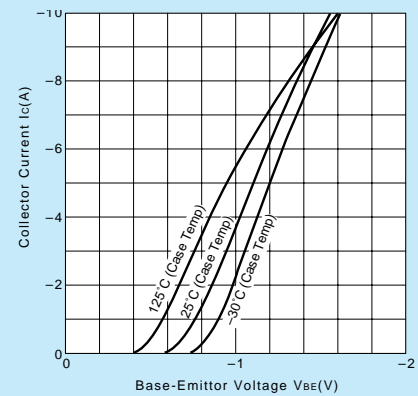
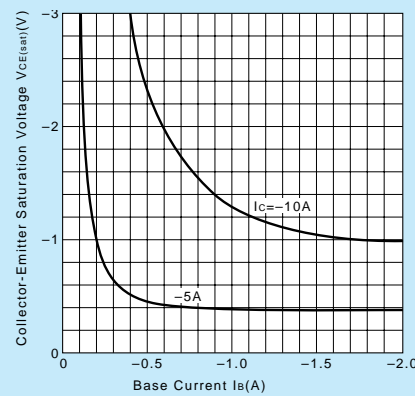
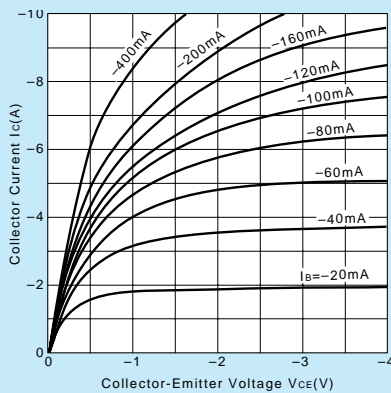
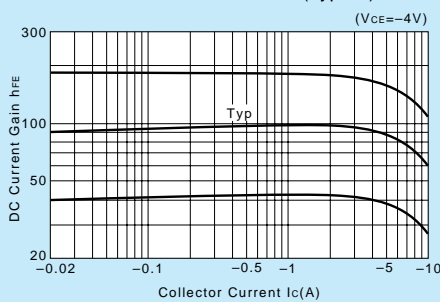
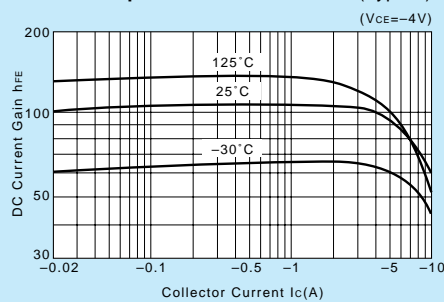
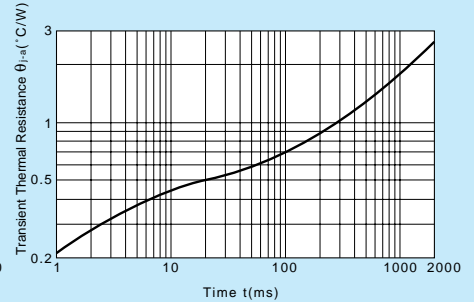
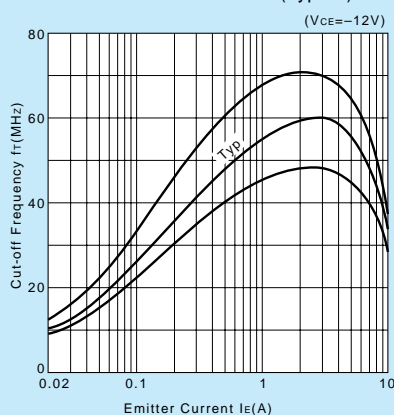
\*h<sub>FE</sub> Rank  $\bar{O}$ (50to100), P(70to140), Y(90to180)

## External Dimensions MT-100(TO3P)

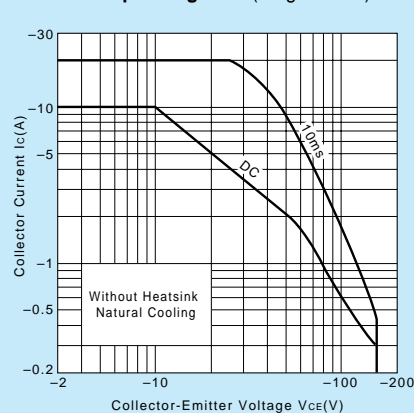


## ■ Typical Switching Characteristics (Common Emitter)

V <sub>CC</sub> (V)	R <sub>L</sub> (Ω)	I <sub>C</sub> (A)	V <sub>B2</sub> (V)	I <sub>B1</sub> (mA)	I <sub>B2</sub> (mA)	t <sub>on</sub> (μs)	t <sub>sig</sub> (μs)	t <sub>f</sub> (μs)
-60	12	-5	5	-500	500	0.25typ	0.8typ	0.2typ

h<sub>FE</sub>-I<sub>C</sub> Characteristics (Typical)h<sub>FE</sub>-I<sub>C</sub> Temperature Characteristics (Typical)θ<sub>JA</sub>-t Characteristicsf<sub>T</sub>-I<sub>E</sub> Characteristics (Typical)

## Safe Operating Area (Single Pulse)

P<sub>C</sub>-T<sub>a</sub> Derating