Silicon NPN Power Transistors 2SC1846

DESCRIPTION

·With TO-126 package
·Complement to type 2SA885
·Low collector saturation

APPLICATIONS

·For medium output power amplification

PINNING

PIN	DESCRIPTION
1	Emitter
2	Collector;connected to mounting base
3	Base

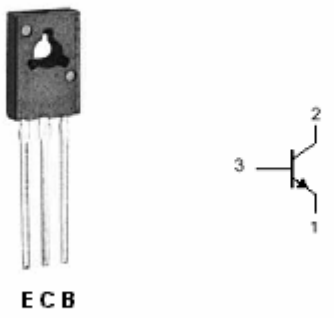

Fig.1 simplified outline (TO-126) and symbol

Absolute Maximun Ratings (Ta=25□)

SYMBOL	PARAMETER	CONDITIONS	VALUE	UNIT
V_{CBO}	Collector-base voltage	Open emitter	45	V
V_{CEO}	Collector-emitter voltage	Open base	35	V
V_{EBO}	Emitter-base voltage	Open collector	5	V
I_C	Collector current (DC)		1	A
I_{CM}	Collector current-peak		1.5	A
P_C	Collector power dissipation	T_C=25□	1.2*[1]	W
			5*[2]	
T_j	Junction temperature		150	□
T_{stg}	Storage temperature		-55~150	□

Note) *1: Without heat sink

*2: With a 100 × 100 × 2 mm A1 heat sink

Silicon NPN Power Transistors 2SC1846

CHARACTERISTICS

Tj=25□ unless otherwise specified

SYMBOL	PARAMETER	CONDITIONS	MIN	TYP.	MAX	UNIT
$V_{(BR)CEO}$	Collector-emitter breakdown voltage	I_C=2mA;I_B=0	35			V
$V_{(BR)CBO}$	Collector-base breakdown voltage	I_C=1mA ;I_E=0	45			V
V_{CEsat}	Collector-emitter saturation voltage	I_C=0.5A ;I_B=50mA			0.5	V
I_{CBO}	Collector cut-off current	V_{CB}=20V; I_E=0			0.1	μA
I_{CEO}	Collector cut-off current	V_{CE}=20V; I_B=0			100	μA
I_{EBO}	Emitter cut-off current	V_{EB}=5V; I_C=0			10	μA
h_{FE-1}	DC current gain	I_C=0.5A ; V_{CE}=10V	85		340	
h_{FE-2}	DC current gain	I_C=1A ; V_{CE}=5V	50			
C_{OB}	Output capacitance	I_E=0 ; V_{CB}=10V;f=1MHz			20	pF
f_T	Transition frequency	I_C=50mA ; V_{CB}=10V,f=200MHz		200		MHz

◆ **h_{FE-1} Classifications**

Q	R	S
85-170	120-240	170-340

PACKAGE OUTLINE

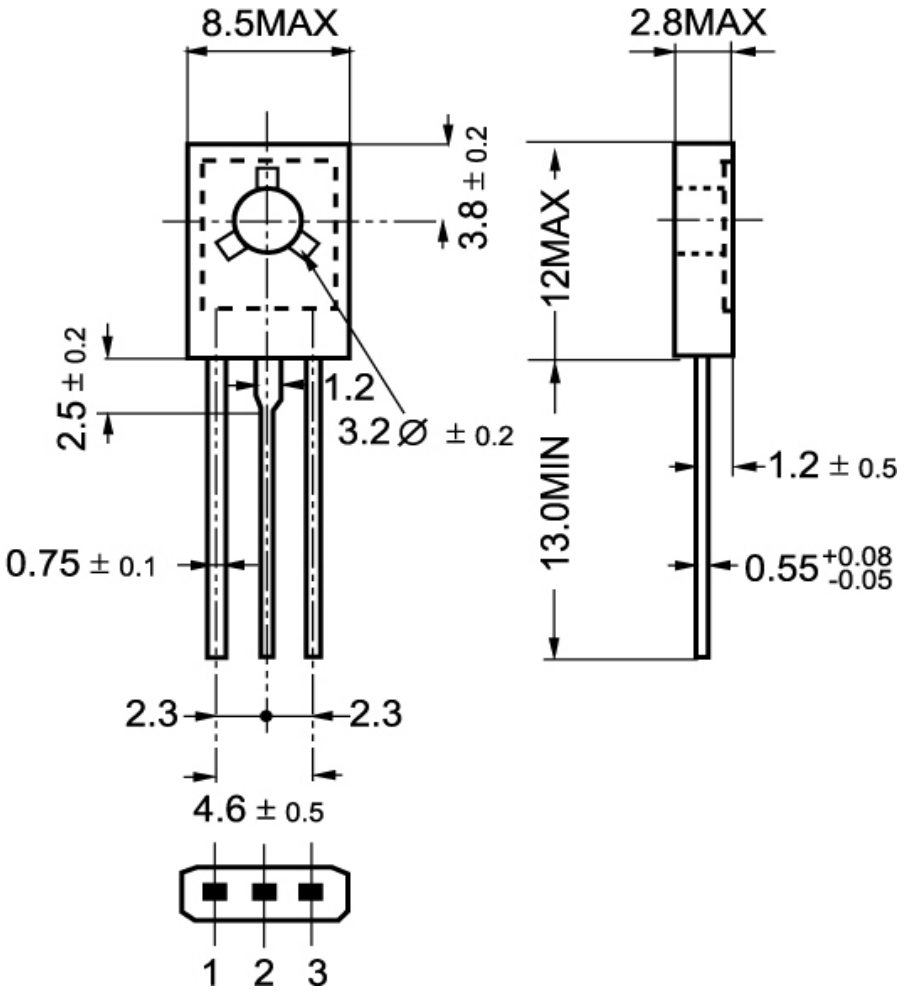

Fig.2 Outline dimensions

Silicon NPN Power Transistors 2SC1846

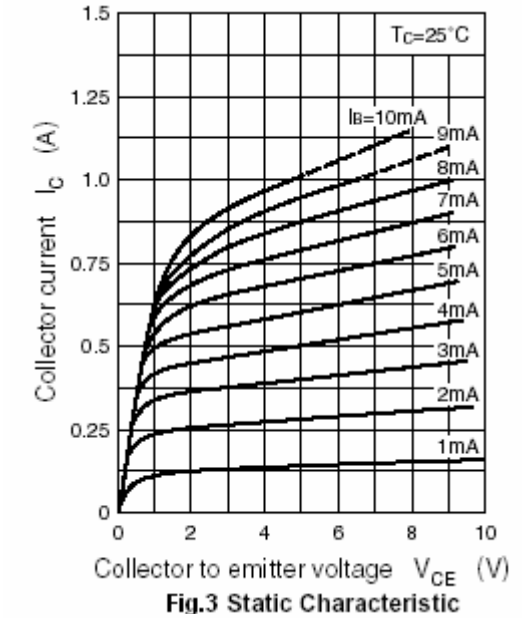

Fig.3 Static Characteristic

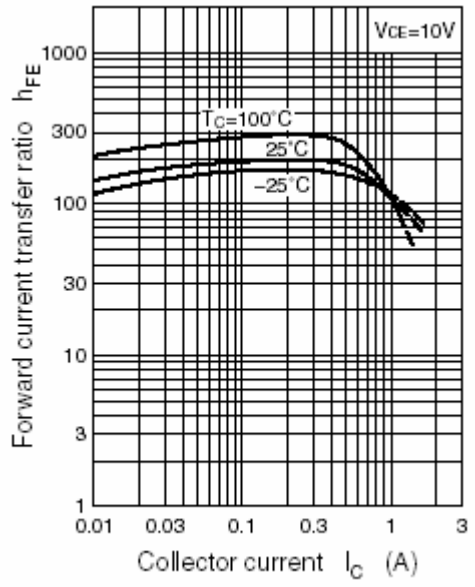

Fig.4 DC current Gain

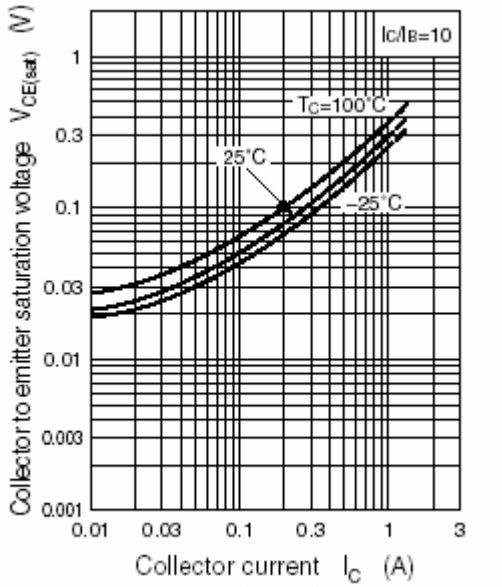

Fig.5 Collector-Emitter Saturation Voltage

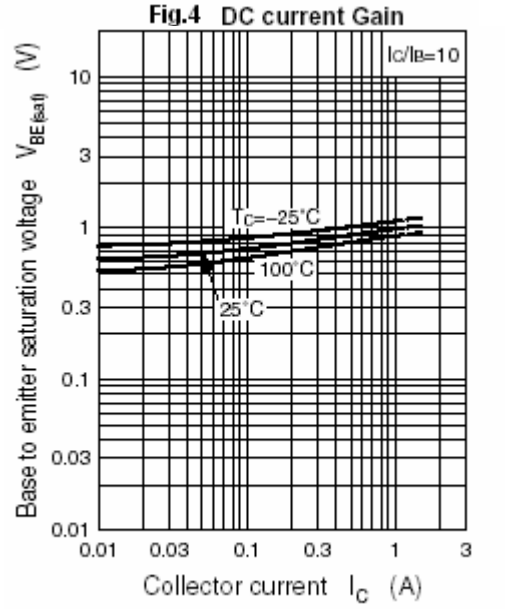

Fig.6 Base-Emitter Saturation Voltage

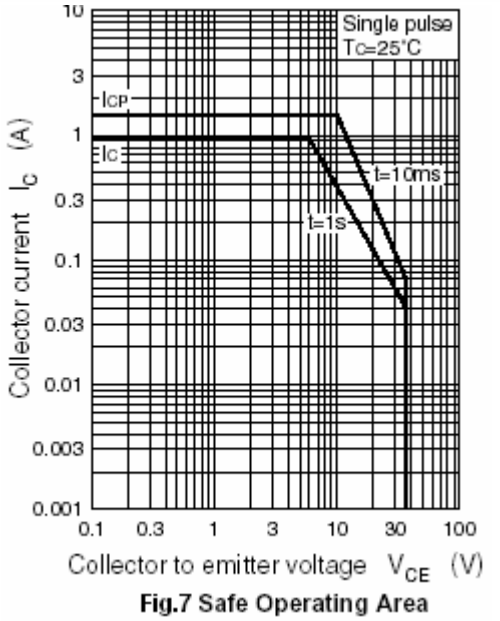

Fig.7 Safe Operating Area