2SC4467

Silicon NPN Triple Diffused Planar Transistor (Complement to type 2SA1694)

Application : Audio and General Purpose

■Absolute maximum ratings (Ta=25°C)

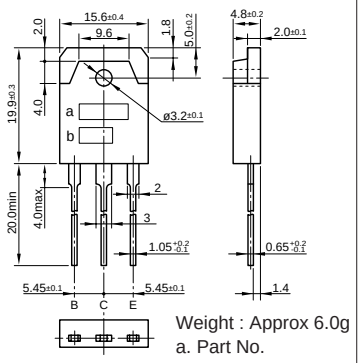
Symbol	Ratings	Unit
V_{CBO}	160	V
V_{CEO}	120	V
V_{EBO}	6	V
I_C	8	A
I_B	3	A
P_C	80(Tc=25°C)	W
Tj	150	°C
Tstg	–55 to +150	°C

■Electrical Characteristics (Ta=25°C)

Symbol	Conditions	Ratings	Unit
I_{CBO}	V_{CB}=160V	10max	μA
I_{EBO}	V_{EB}=6V	10max	μA
$V_{(BR)CEO}$	I_C=50mA	120min	V
h_{FE}	V_{CE}=4V, I_C=3A	50min*	
$V_{CE(sat)}$	I_C=3A, I_B=0.3A	1.5max	V
f_T	V_{CE}=12V, I_E=–0.5A	20typ	MHz
C_{OB}	V_{CB}=10V, f=1MHz	200typ	pF

*h_{FE} Rank O(50to100), P(70to140), Y(90to180)

External Dimensions MT-100(TO3P)

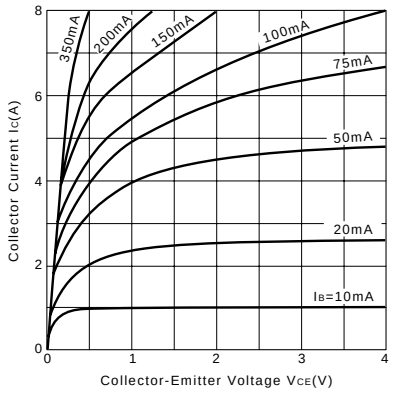


Weight : Approx 6.0g
a. Part No.
b. Lot No.

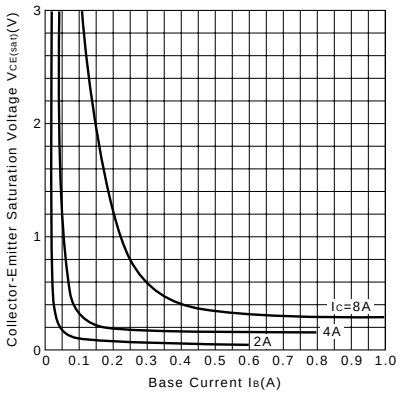
■Typical Switching Characteristics (Common Emitter)

V_{CC} (V)	R_L (Ω)	I_C (A)	V_{BB1} (V)	V_{BB2} (V)	I_{B1} (A)	I_{B2} (A)	ton (μs)	tstg (μs)	tf (μs)
40	10	4	10	–5	0.4	–0.4	0.13typ	3.50typ	0.32typ

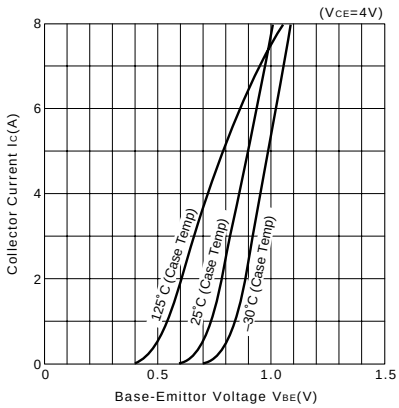
I_C–V_{CE} Characteristics (Typical)



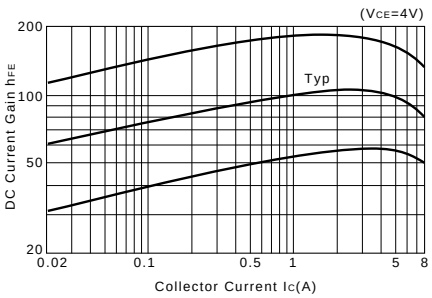
$V_{CE(sat)}$–I_B Characteristics (Typical)



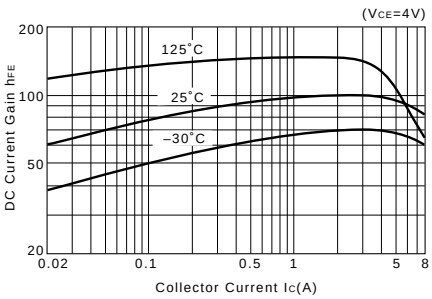
I_C–V_{BE} Temperature Characteristics (Typical)



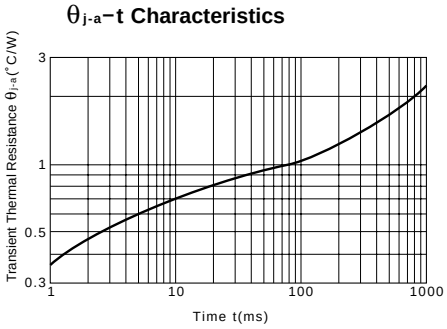
h_{FE}–I_C Characteristics (Typical)



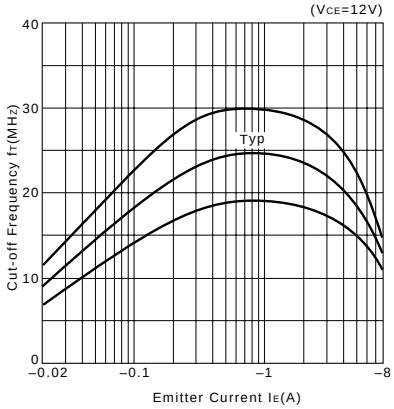
h_{FE}–I_C Temperature Characteristics (Typical)



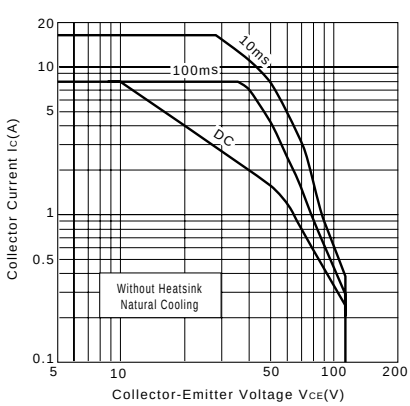
$\theta_{j\text{-}a}$–t Characteristics



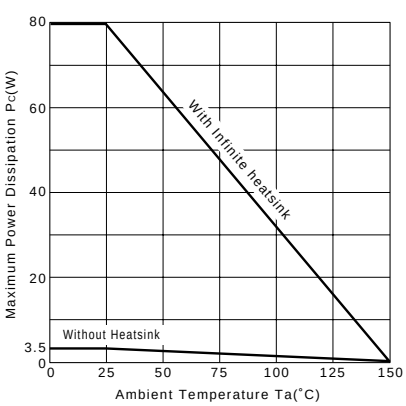
f_T–I_E Characteristics (Typical)



Safe Operating Area (Single Pulse)



Pc–Ta Derating



Pb Free Plating Product

2SC4467

80 Watt Silicon NPN Triple Diffused Planar Transistor

DESCRIPTION

·With TO-3PI package

·Complement to type 2SA1694

APPLICATIONS

·Audio and general purpose

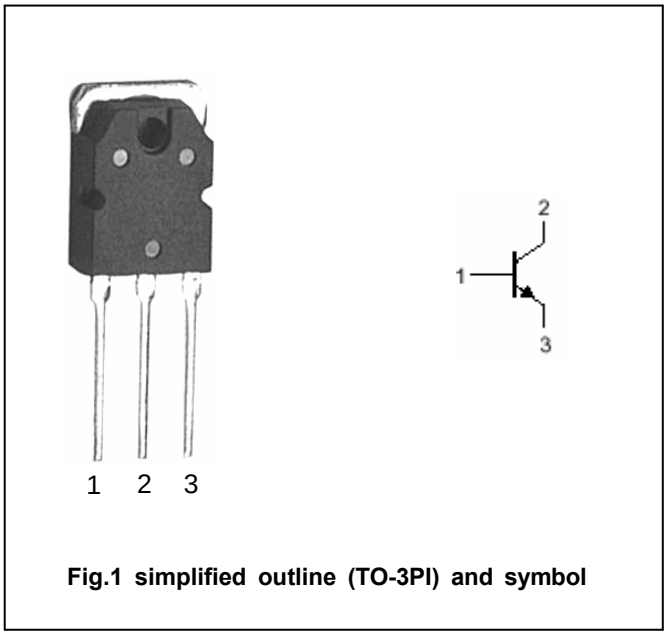


Fig.1 simplified outline (TO-3PI) and symbol

PINNING

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

ABSOLUTE MAXIMUM RATINGS(T_a=25℃)

SYMBOL	PARAMETER	CONDITIONS	VALUE	UNIT
V_{CBO}	Collector-base voltage	Open emitter	160	V
V_{CEO}	Collector-emitter voltage	Open base	120	V
V_{EBO}	Emitter-base voltage	Open collector	6	V
I_C	Collector current		8	A
I_B	Base current		3	A
P_C	Collector power dissipation	T_C=25℃	80	W
T_j	Junction temperature		150	℃
T_{stg}	Storage temperature		-55~150	℃

CHARACTERISTICS

Tj=25℃ unless otherwise specified

SYMBOL	PARAMETER	CONDITIONS	MIN	TYP.	MAX	UNIT
$V_{(BR)CEO}$	Collector-emitter breakdown voltage	I_C=50mA ;I_B=0	120			V
V_{CEsat}	Collector-emitter saturation voltage	I_C=3A ;I_B=0.3A			1.5	V
I_{CBO}	Collector cut-off current	V_{CB}=160V; I_E=0			10	μA
I_{EBO}	Emitter cut-off current	V_{EB}=6V; I_C=0			10	μA
h_{FE}	DC current gain	I_C=3A ; V_{CE}=4V	50		180	
C_{OB}	Output capacitance	I_E=0 ; V_{CB}=10V,f=1MHz		200		pF
f_T	Transition frequency	I_C=0.5A ; V_{CE}=12V		20		MHz

Switching times

t_{on}	Turn-on time	I_C=4A;R_L=10Ω I_{B1}=- I_{B2}=0.4A V_{CC}=40V		0.13		Ms
t_s	Storage time			3.50		Ms
t_f	Fall time			0.32		Ms

◆ h_{FE} Classifications

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

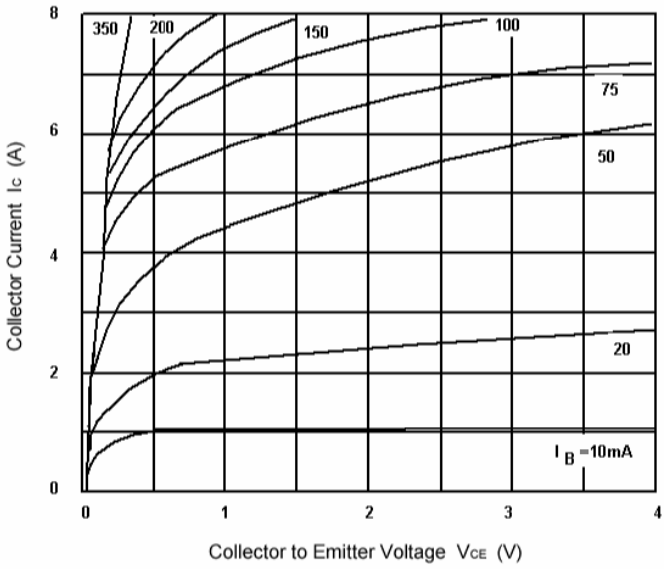


Fig.3 Static Characteristic

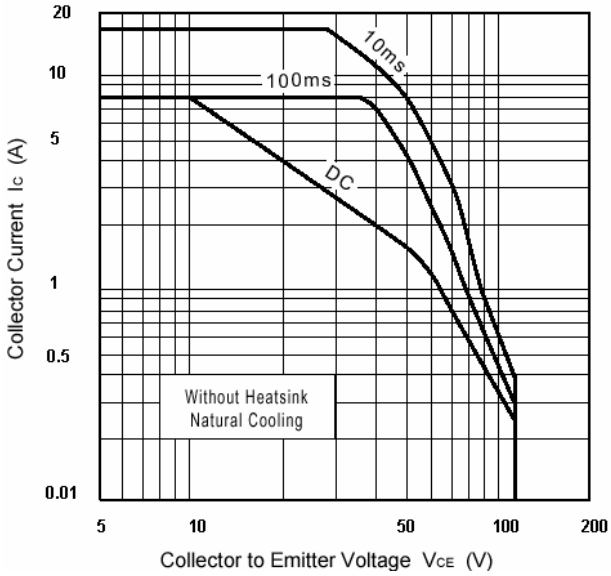


Fig.4 Safe Operating Area

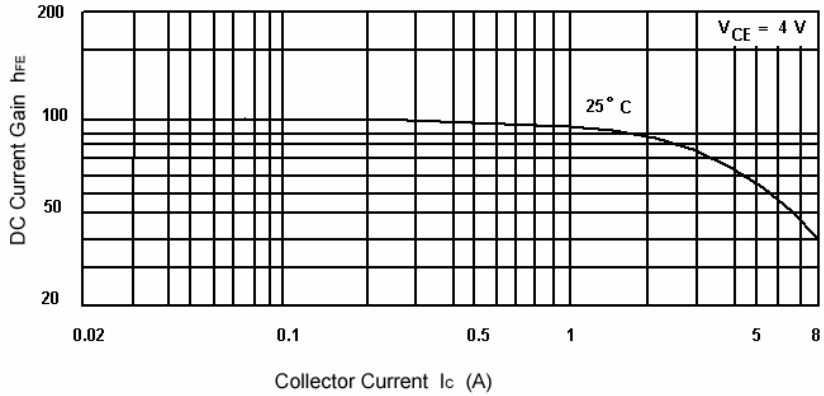


Fig.5 DC current Gain

TO-3PI PACKAGE OUTLINE UNIT:mm

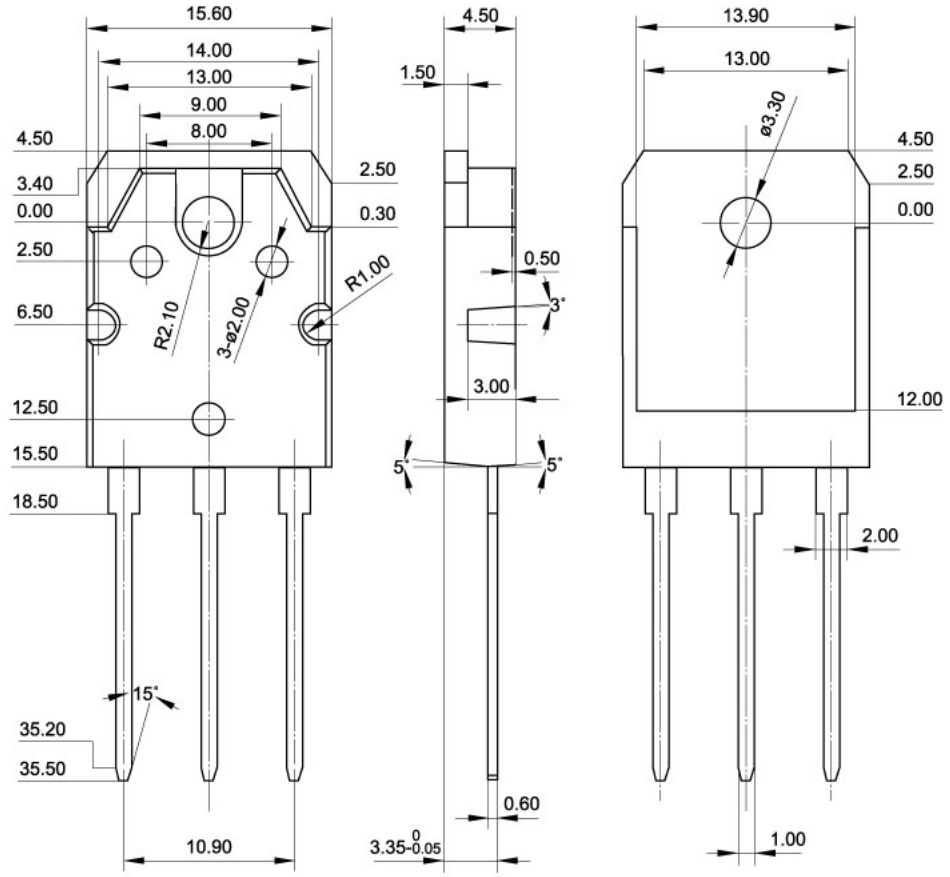


Fig.2 outline dimensions (unindicated tolerance:±0.1mm)