

Silicon NPN Power Transistors

2SC3317

DESCRIPTION

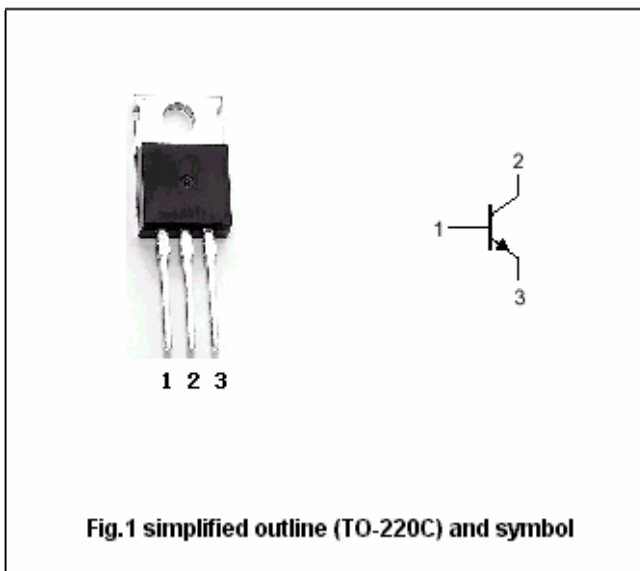
- With TO-220C package
- High voltage,high speed switching
- High reliability

APPLICATIONS

- Switching regulators
- Ultrasonic generators
- High frequency inverters
- General purpose power amplifiers

PINNING

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



Absolute maximum ratings(Ta=25°C)

SYMBOL	PARAMETER	CONDITIONS	VALUE	UNIT
V _{CBO}	Collector-base voltage	Open emitter	500	V
V _{CEO}	Collector-emitter voltage	Open base	400	V
V _{EBO}	Emitter-base voltage	Open collector	7	V
I _C	Collector current		5	A
I _B	Base current		2	A
P _C	Collector dissipation	T _C =25°C	40	W
T _j	Junction temperature		150	°C
T _{stg}	Storage temperature		-65~150	°C

THERMAL CHARACTERISTICS

SYMBOL	PARAMETER	MAX	UNIT
R _{th j-c}	Thermal resistance junction to case	3.13	°C/W

Silicon NPN Power Transistors

2SC3317

CHARACTERISTICS

T_j=25°C unless otherwise specified

SYMBOL	PARAMETER	CONDITIONS	MIN	TYP.	MAX	UNIT
V _{(BR)CEO}	Collector-emitter breakdown voltage	I _C =10mA ; I _B =0	400			V
V _{CEO(SUS)}	Collector-emitter sustaining voltage	I _C =0.2A ; I _B =0	400			
V _{(BR)CBO}	Collector-base breakdown voltage	I _C =1mA ; I _E =0	500			V
V _{(BR)EBO}	Emitter-base breakdown voltage	I _E =1mA ; I _B =0	7			V
V _{CEsat}	Collector-emitter saturation voltage	I _C =2A; I _B =0.4A			1.0	V
V _{BEsat}	Base-emitter saturation voltage	I _C =2A; I _B =0.4A			1.5	V
I _{CBO}	Collector cut-off current	V _{CB} =500V ; I _E =0			1	mA
I _{EBO}	Emitter cut-off current	V _{EB} =7V; I _C =0			1	mA
h _{FE}	DC current gain	I _C =2A ; V _{CE} =5V	10			

Switching times

t _{on}	Turn-on time	I _C =2.5A; I _{B1} =0.5A; I _{B2} =-1A; R _L =60Ω Pw=20μs ; Duty≤2%			0.50	μs
t _{stg}	Storage time				1.50	μs
t _f	Fall time				0.15	μs

Silicon NPN Power Transistors

2SC3317

PACKAGE OUTLINE



Fig.2 Outline dimensions (unindicated tolerance: ± 0.10 mm)

Silicon NPN Power Transistors

2SC3317

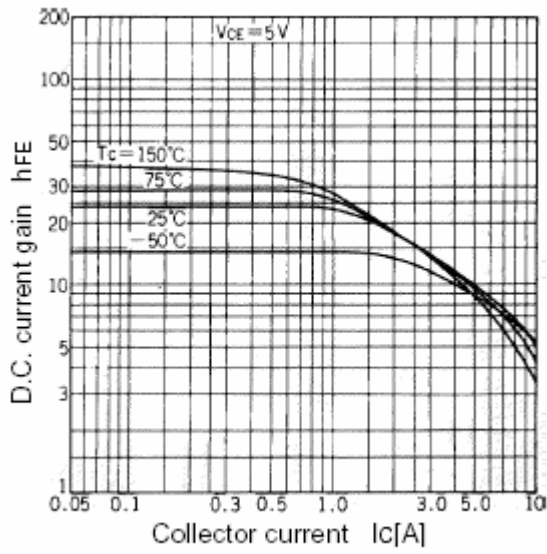


Fig.3 DC current Gain

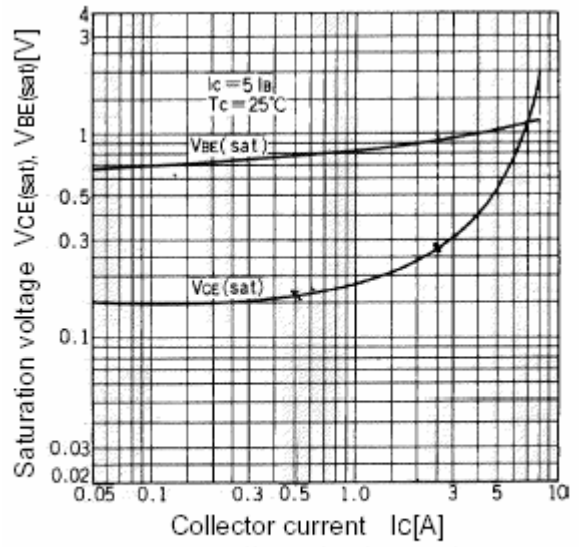


Fig.4 Base-Emitter Saturation Voltage
Collector-Emitter Saturation Voltage

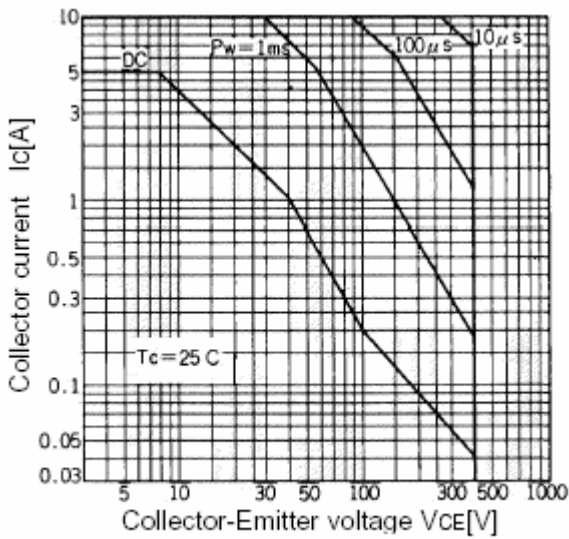


Fig.5 DC current Gain