

Silicon NPN Power Transistors

2SC3336

DESCRIPTION

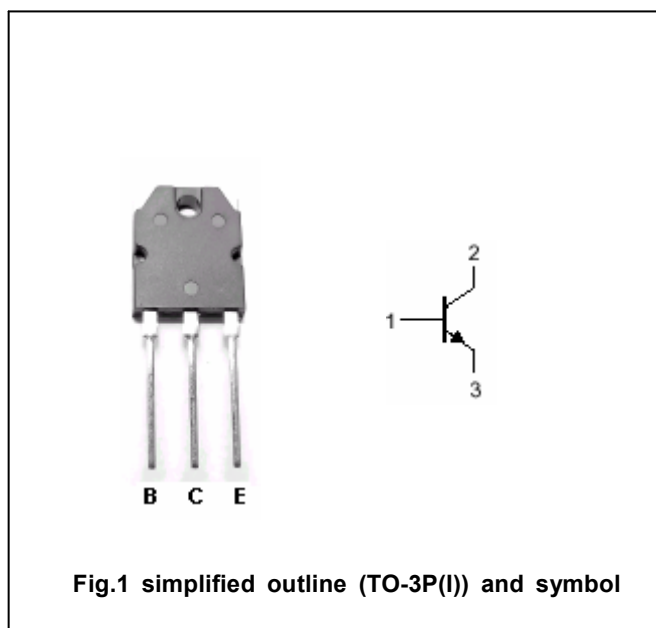
- With TO-3P(I) package
- High voltage,high speed

APPLICATIONS

- For high voltage ; high speed and high power switching applications

PINNING

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

Absolute maximum ratings($T_a=25^\circ\text{C}$)

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	10	V
I_C	Collector current		15	A
I_{CM}	Collector current-peak		25	A
I_B	Base current		7.5	A
P_T	Total power dissipation	$T_C=25^\circ\text{C}$	100	W
T_j	Junction temperature		150	$^\circ\text{C}$
T_{stg}	Storage temperature		-55~150	$^\circ\text{C}$

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CHARACTERISTICS

Tj=25°C unless otherwise specified

SYMBOL	PARAMETER	CONDITIONS	MIN	TYP.	MAX	UNIT
$V_{CEO(SUS)}$	Collector-emitter sustaining voltage	$I_C=0.2A, R_{BE}=\infty; L=100mH$	400			V
$V_{(BR)EBO}$	Emitter-base breakdown voltage	$I_E=10mA; I_C=0$	10			V
V_{CEsat}	Collector-emitter saturation voltage	$I_C=7.5A; I_B=1.5A$			1.0	V
$V_{BE sat}$	Base-emitter saturation voltage	$I_C=7.5A; I_B=1.5A$			1.5	V
I_{CBO}	Collector cut-off current	$V_{CB}=400V; I_E=0$			50	μA
I_{CEO}	Collector cut-off current	$V_{CE}=350V; R_{BE}=\infty$			50	μA
h_{FE-1}	DC current gain	$I_C=7.5A; V_{CE}=5V$	12			
h_{FE-2}	DC current gain	$I_C=15A; V_{CE}=5V$	5			

Switching times

t_{on}	Turn-on time	$I_C=15A; V_{CC}=150V$ $I_B=-I_B=3.0A$			0.5	μs
t_{stg}	Storage time				1.5	μs
t_f	Fall time				0.5	μs

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PACKAGE OUTLINE

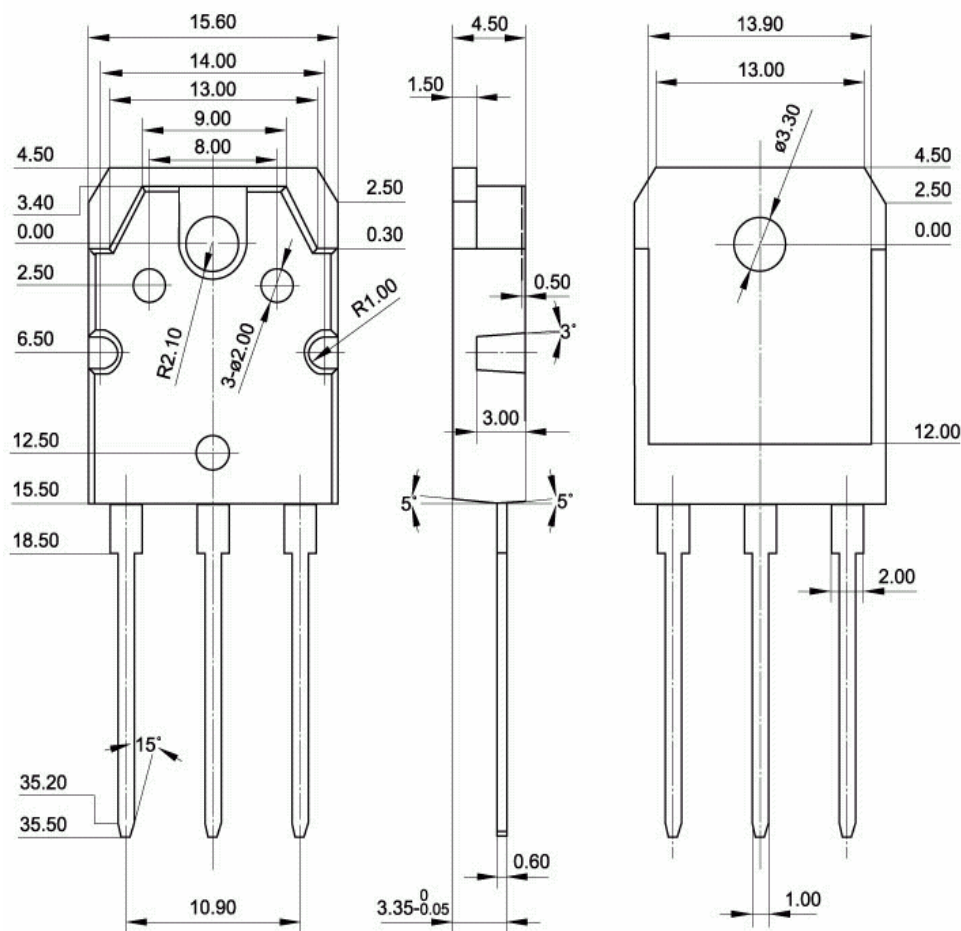


Fig.2 Outline dimensions(unindicated tolerance:±0.10 mm)

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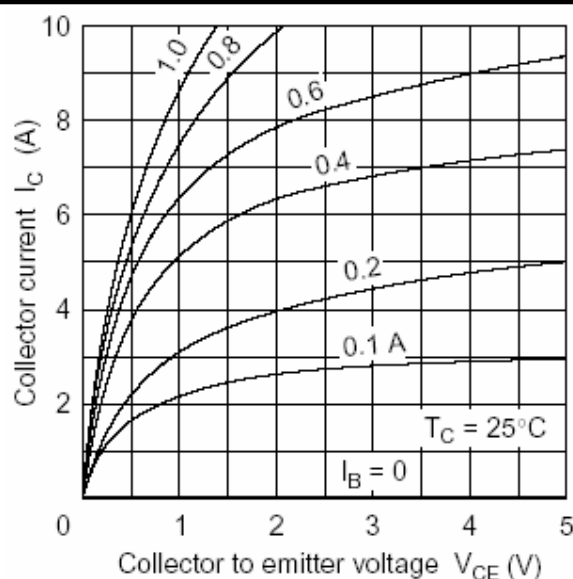


Fig.3 Static Characteristic

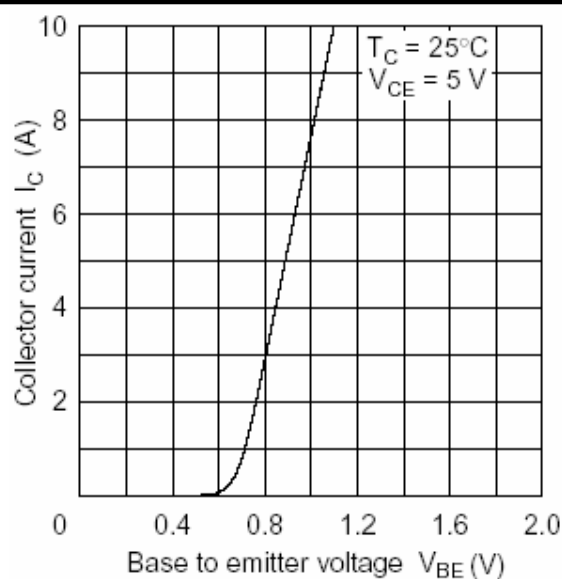
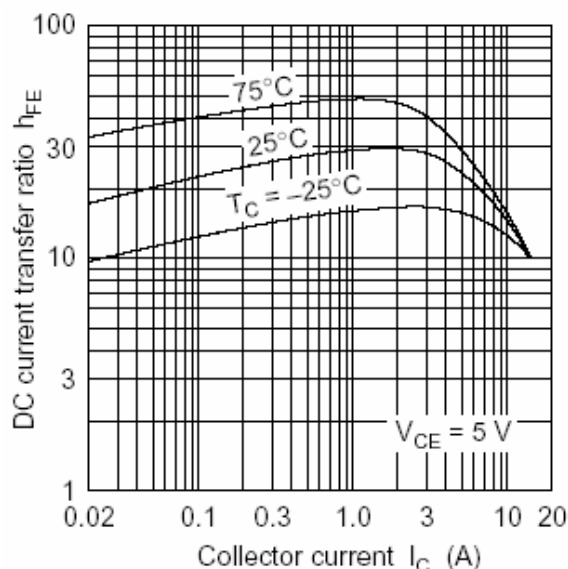
Fig.4 $I_C - V_{BE}$ 

Fig.5 DC current Gain

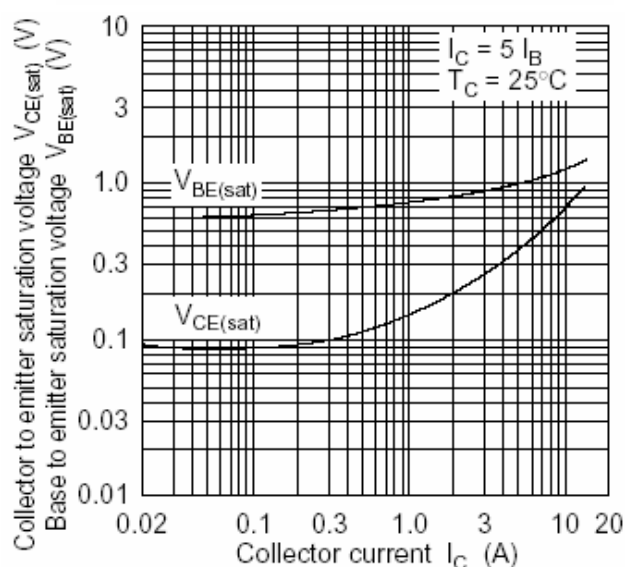
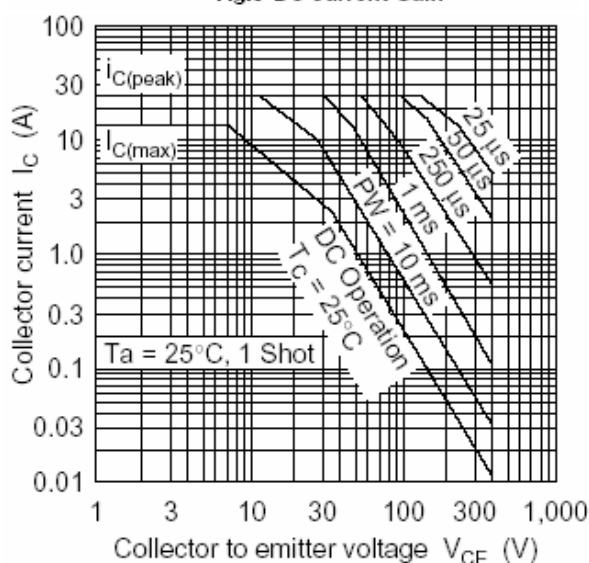
Fig.6 Base-Emitter Saturation Voltage
Collector-Emitter Saturation Voltage

Fig.7 Safe Operating Area