

Silicon NPN Power Transistors

2SC3685

DESCRIPTION

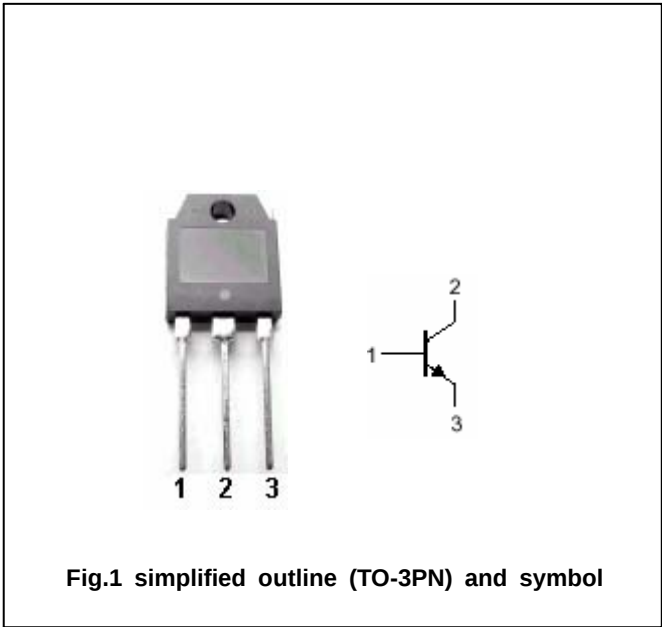
- With TO-3PN package
- High breakdown voltage
- High reliability
- Fast speed

APPLICATIONS

- Ultrahigh-definition CRT display horizontal deflection output applications

PINNING

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



Absolute maximum ratings(Ta=)

SYMBOL	PARAMETER	CONDITIONS	VALUE	UNIT
V _{CBO}	Collector-base voltage	Open emitter	1500	V
V _{CEO}	Collector-emitter voltage	Open base	800	V
V _{EBO}	Emitter-base voltage	Open collector	6	V
I _C	Collector current		6	A
I _{CP}	Collector current-pulse		16	A
P _C	Collector power dissipation	T _C =25	125	W
T _j	Junction temperature		150	
T _{stg}	Storage temperature		-55~150	

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CHARACTERISTICS

Tj=25 unless otherwise specified

SYMBOL	PARAMETER	CONDITIONS	MIN	TYP.	MAX	UNIT
$V_{CEO(SUS)}$	Collector-emitter sustaining voltage	$I_C=100mA$; $I_B=0$	800			V
V_{CEsat}	Collector-emitter saturation voltage	$I_C=4A$; $I_B=1A$			5	V
V_{BEsat}	Base-emitter saturation voltage	$I_C=4A$; $I_B=1A$			1.5	V
I_{CES}	Collector cut-off current	$V_{CE}=1500V$; $R_{BE}=0$			1	mA
I_{EBO}	Emitter cut-off current	$V_{EB}=4V$; $I_C=0$			1	mA
h_{FE}	DC current gain	$I_C=1A$; $V_{CE}=5V$	8			

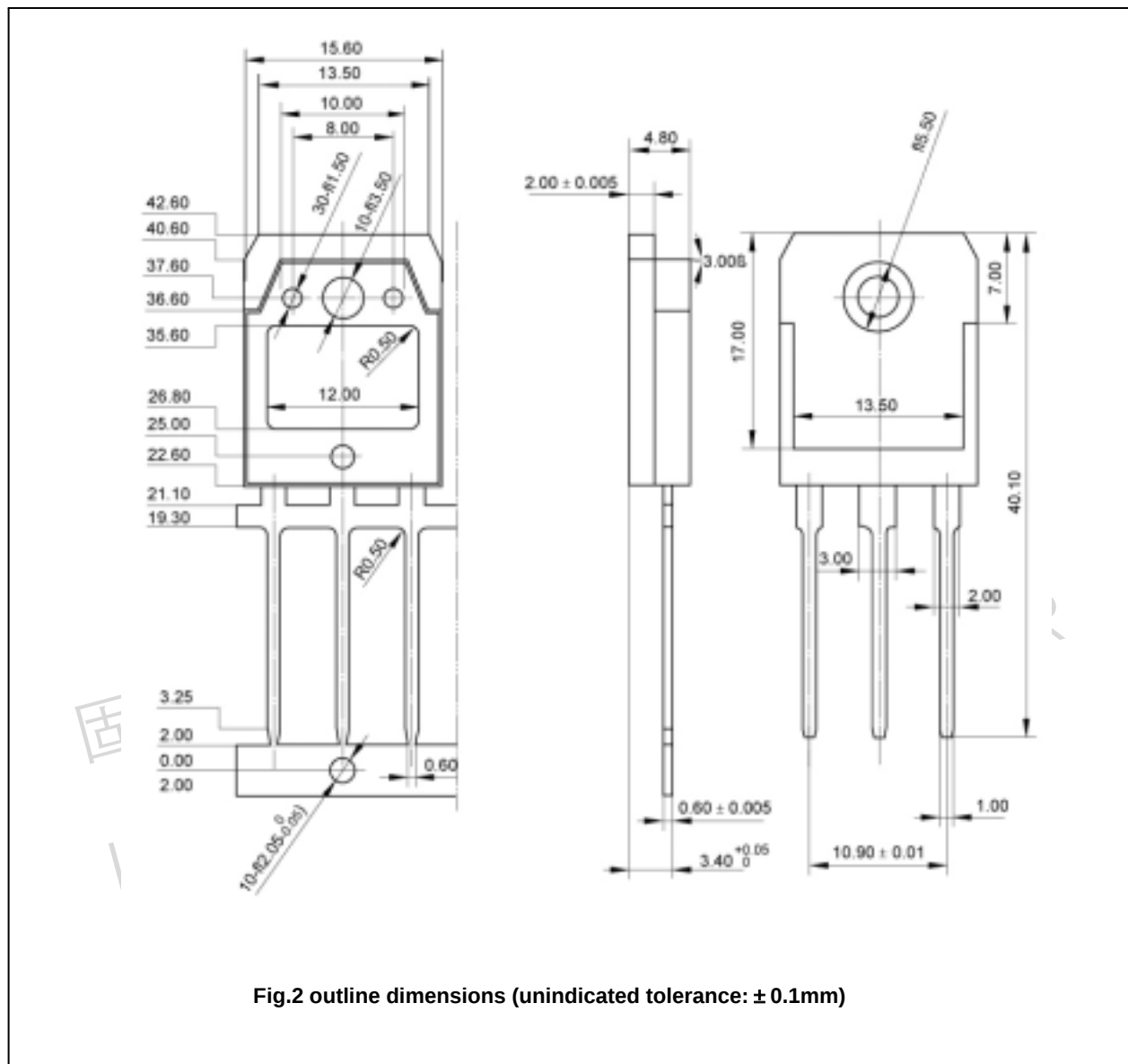
Switching times

t_{stg}	Storage time	$I_C=4A$; $I_{B1}=0.8A$; $I_{B2}=-1.6A$ $V_{CC}=200V$			3.0	μs
t_f	Fall time			0.1	0.2	μs

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PACKAGE OUTLINE



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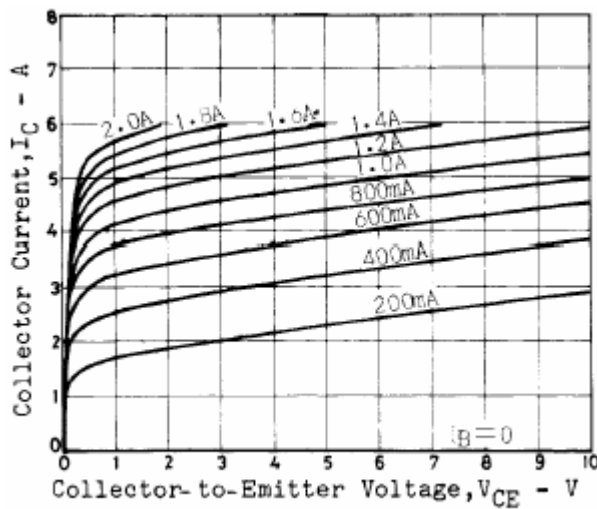


Fig.3 Static Characteristic

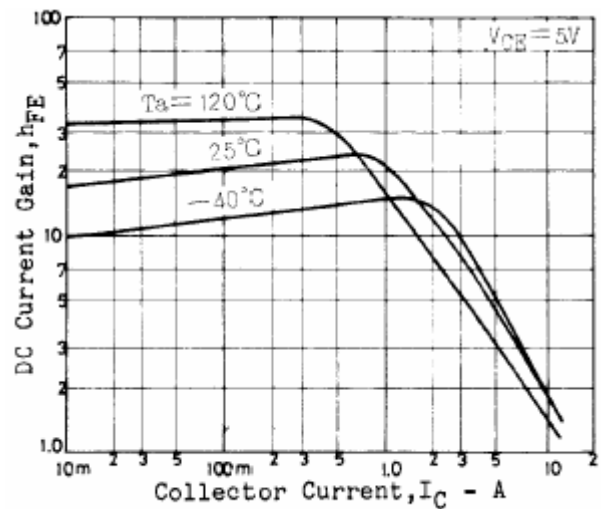


Fig.4 DC current Gain

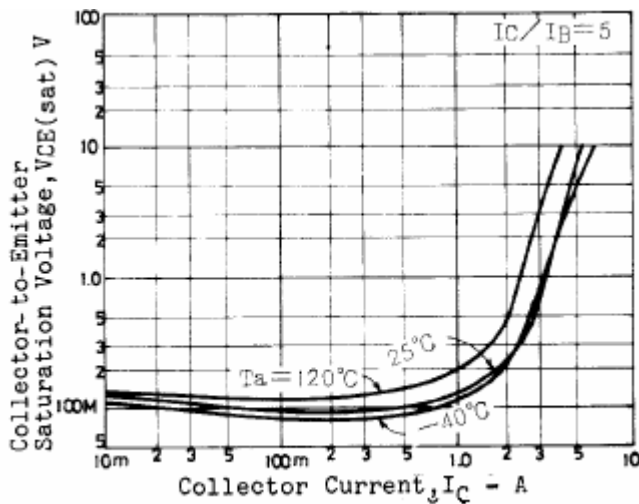


Fig.5 Collector-Emitter Saturation Voltage

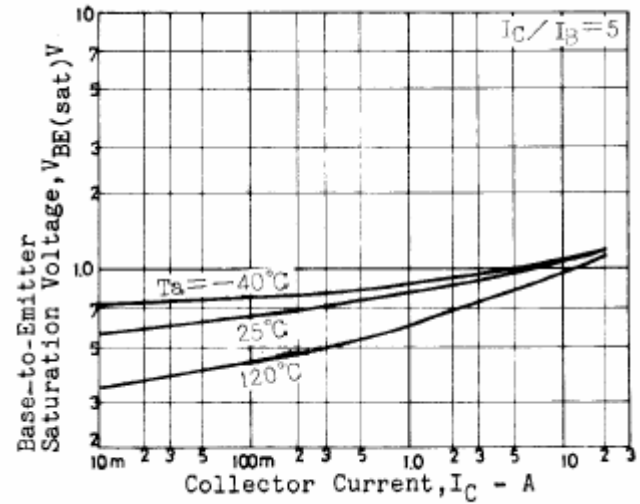


Fig.6 Base-Emitter Saturation Voltage

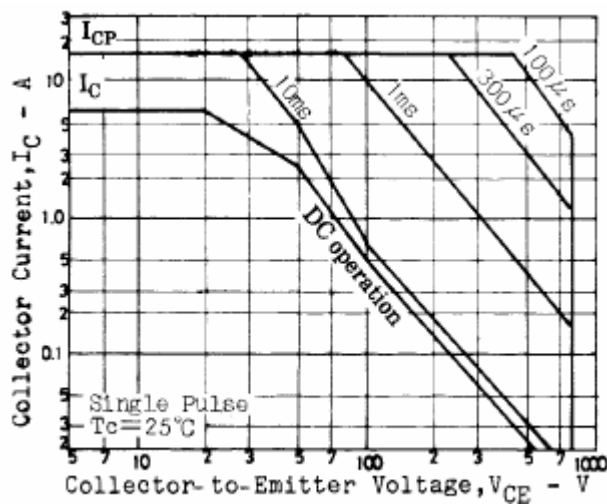


Fig.7 Safe Operating Area