

Inchange Semiconductor

Product Specification

Silicon NPN Power Transistors

2N3585

DESCRIPTION

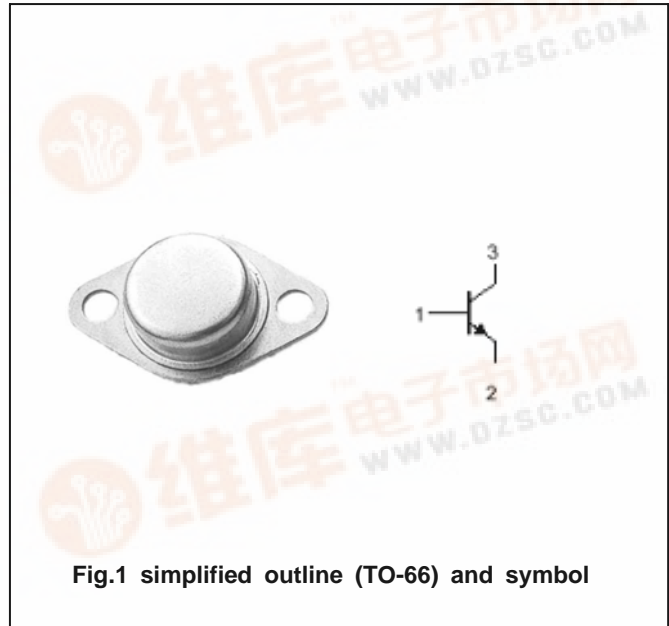
- With TO-66 package
- Continuous collector current- $I_C=2A$
- Power dissipation - $PD=35W$ @ $T_C=25^\circ C$
- $V_{CE(SAT)}=0.75V(Max)$ @ $I_C=1A; I_B=0.125A$

APPLICATIONS

- High speed switching and linear amplification
- High-voltage operational amplifiers
- Switching regulators ,converters
- Deflection stages and high fidelity amplifiers

PINNING (See Fig.2)

PIN	DESCRIPTION
1	Base
2	Emitter
3	Collector



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

SYMBOL	PARAMETER	CONDITIONS	VALUE	UNIT
V_{CBO}	Collector-base voltage	Open emitter	500	V
V_{CEO}	Collector-emitter voltage	Open base	300	V
V_{EBO}	Emitter-base voltage	Open collector	6	V
I_C	Collector current		2	A
I_{CM}	Collector current-Peak		5	A
I_B	Base current		1	A
P_T	Total power dissipation	$T_C=25^\circ C$	35	W
T_j	Junction temperature		200	$^\circ C$
T_{stg}	Storage temperature		-65~200	$^\circ C$

THERMAL CHARACTERISTICS

SYMBOL	PARAMETER	MAX	UNIT
$R_{th\ j-c}$	Thermal resistance junction to case	5.0	$^\circ C/W$

Silicon NPN Power Transistors

2N3585

CHARACTERISTICS

T_j=25°C unless otherwise specified

SYMBOL	PARAMETER	CONDITIONS	MIN	TYP.	MAX	UNIT
V _{CEO(SUS)}	Collector-emitter sustaining voltage	I _C =0.2A ; I _B =0	300			V
V _{CEsat}	Collector-emitter saturation voltage	I _C =1A ; I _B =0.125A			0.75	V
V _{BEsat}	Base-emitter saturation voltage	I _C =1A ; I _B =0.1A			1.4	V
V _{BE}	Base -emitter on voltage	I _C =1A ; V _{CE} =10V			1.4	V
I _{CEX}	Collector cut-off current	V _{CE} =450V ; V _{BE(off)} =1.5V V _{CE} =300V ; V _{BE(off)} =1.5V T _C =150°C			1.0 3.0	mA
I _{CEO}	Collector cut-off current	V _{CE} =150V ; I _B =0			5.0	mA
I _{EBO}	Emitter cut-off current	V _{EB} =6V ; I _C =0			0.5	mA
h _{FE-1}	DC current gain	I _C =0.1A ; V _{CE} =10V	40			
h _{FE-2}	DC current gain	I _C =1A ; V _{CE} =2V	8		80	
h _{FE-3}	DC current gain	I _C =1A ; V _{CE} =10V	25		100	

Silicon NPN Power Transistors

2N3585

PACKAGE OUTLINE

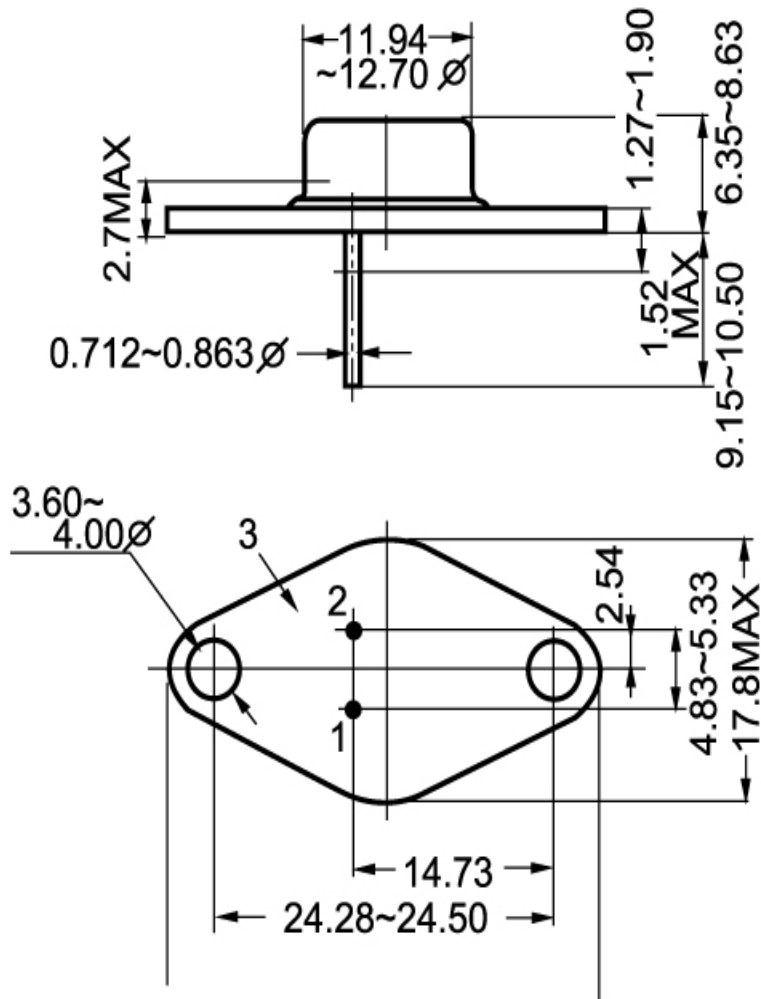


Fig.2 Outline dimensions

Silicon NPN Power Transistors

2N3585

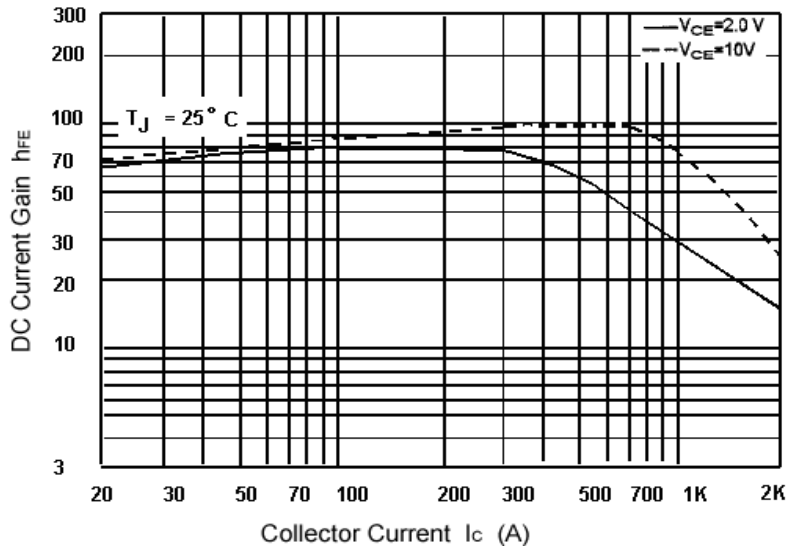


Fig.3 DC current Gain

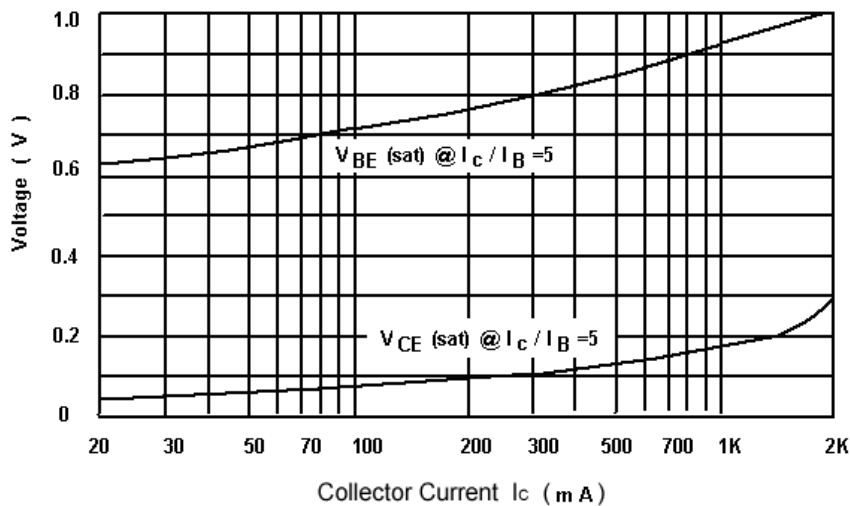


Fig.4 Base-Emitter Saturation Voltage
Collector-Emitter Saturation Voltage

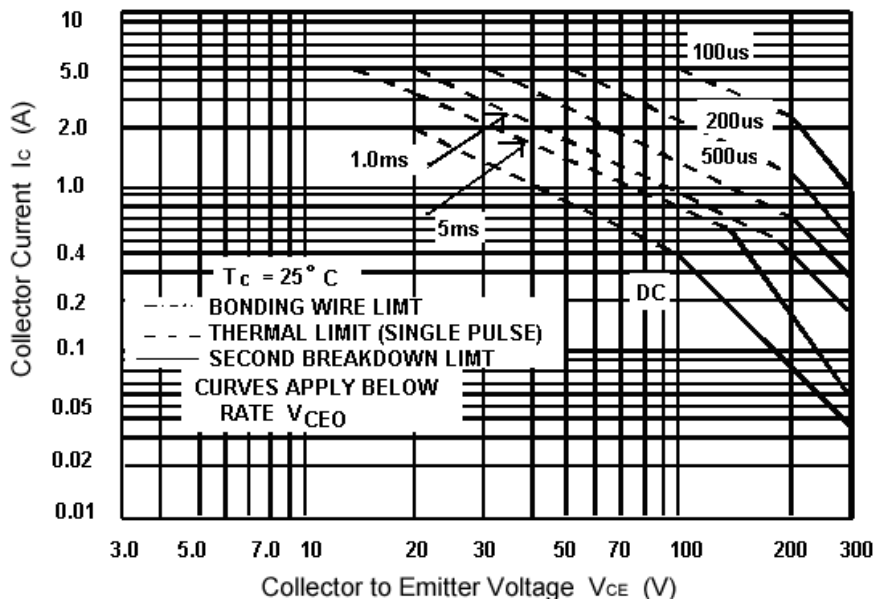


Fig.5 Safe Operating Area