Silicon NPN Power Transistors 2SC2625

DESCRIPTION

- With TO-3PN 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

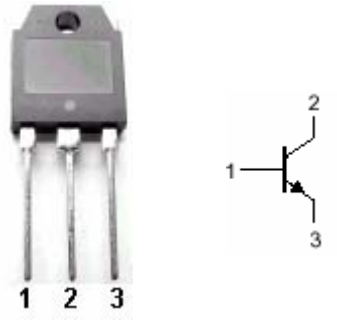

Fig.1 simplified outline (TO-3PN) and symbol

Absolute maximum ratings (Tc=25℃)

SYMBOL	PARAMETER	CONDITIONS	VALUE	UNIT
V_{CBO}	Collector-base voltage	Open emitter	450	V
V_{CEO}	Collector-emitter voltage	Open base	400	V
V_{EBO}	Emitter-base voltage	Open collector	7	V
I_C	Collector current		10	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	℃

THERMAL CHARACTERISTICS

SYMBOL	PARAMETER	MAX	UNIT
$R_{th\ j\text{-}C}$	Thermal resistance junction to case	1.55	℃/W

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CHARACTERISTICS

Tj=25℃ 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=1A ;I_B=0	400			V
$V_{(BR)CBO}$	Collector-base breakdown voltage	I_C=1mA ;I_E=0	450			V
$V_{(BR)EBO}$	Emitter-base breakdown voltage	I_E=0.1mA ;I_C=0	7			V
V_{CEsat}	Collector-emitter saturation voltage	I_C=4A; I_B=0.8A			1.2	V
V_{BEsat}	Emitter-base saturation voltage	I_C=4A ;I_B=0.8A			1.5	V
I_{CBO}	Collector cut-off current	V_{CB}=450V I_E=0			1.0	mA
I_{EBO}	Emitter cut-off current	V_{EB}=7V; I_C=0			0.1	mA
h_{FE}	DC current gain	I_C=4A ; V_{CE}=5V	10			

Switching times

t_{on}	Turn-on time	I_C=7.5A; I_{B1}=-I_{B2}=1.5A R_L=20Ω,Pw=20μs Duty≤2%			1.0	μs
t_s	Storage time				2.0	μs
t_f	Fall time				1.0	μs

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PACKAGE OUTLINE

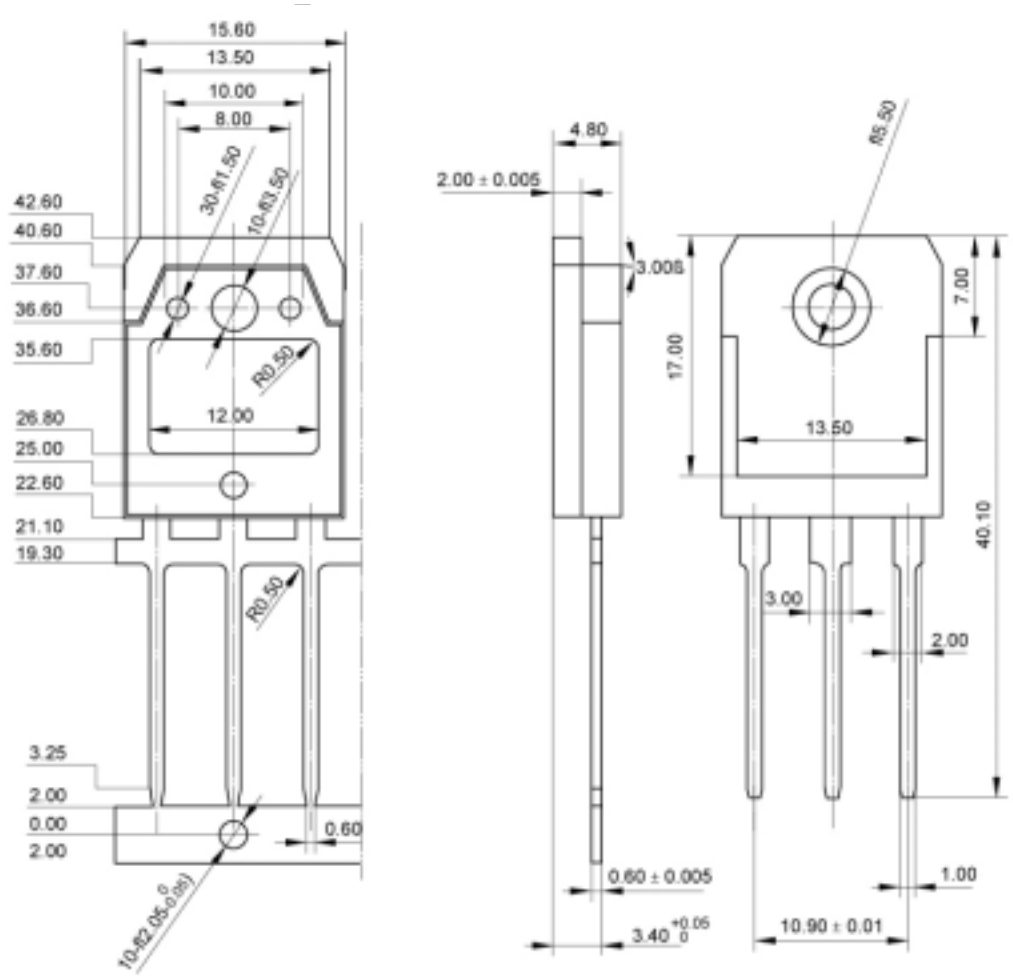

Fig.2 outline dimensions

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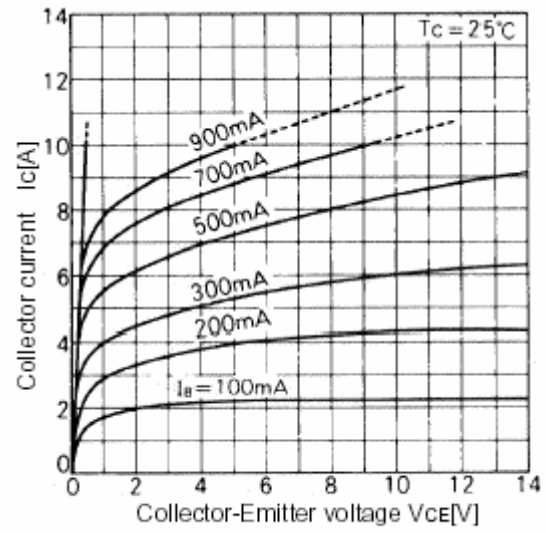

Fig.3 Static Characteristic

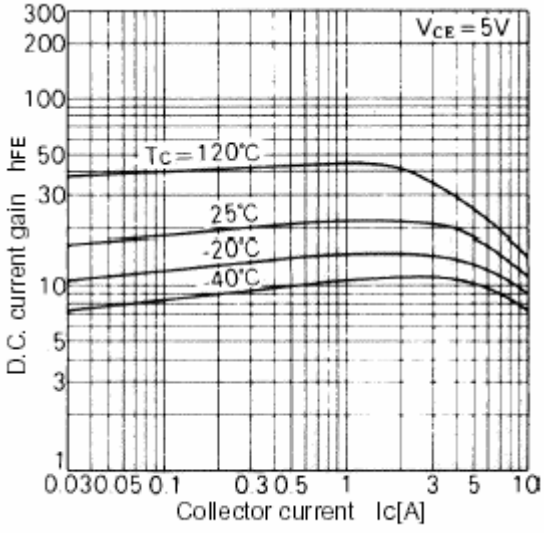

Fig.4 DC current Gain

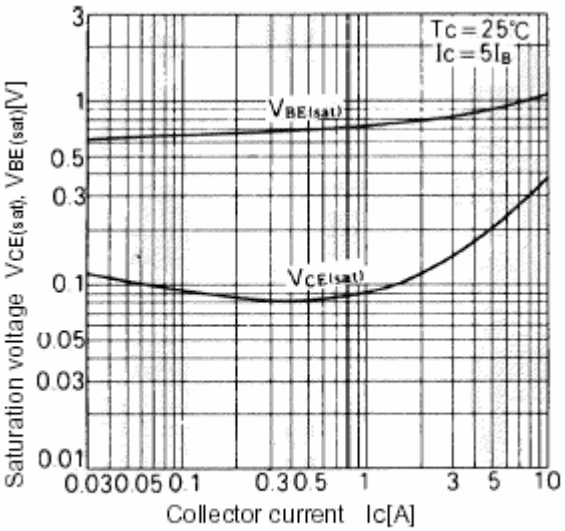

Fig.5 Base-Emitter Saturation Voltage
Collector-Emitter Saturation Voltage

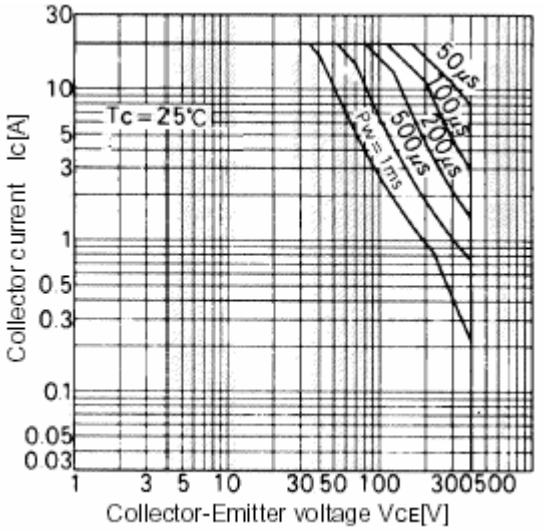

Fig.6 Safe Operating Area