Silicon NPN Power Transistors 2SC3686

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

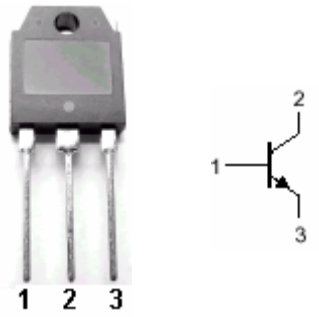


Fig.1 simplified outline (TO-3PN) and symbol

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		7	A
I_{CP}	Collector current-pulse		16	A
P_C	Collector power dissipation	T_C=25□	120	W
T_j	Junction temperature		150	□
T_{stg}	Storage temperature		-55~150	□

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=5A ;I_B=1.2A			5	V
V_{BEsat}	Base-emitter saturation voltage	I_C=5A ;I_B=1.2A			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; V_{CC}=5V I_{B1}=0.8A; I_{B2}=-1.6A			3	μs
t_f	Fall time			0.1	0.2	μs

PACKAGE OUTLINE

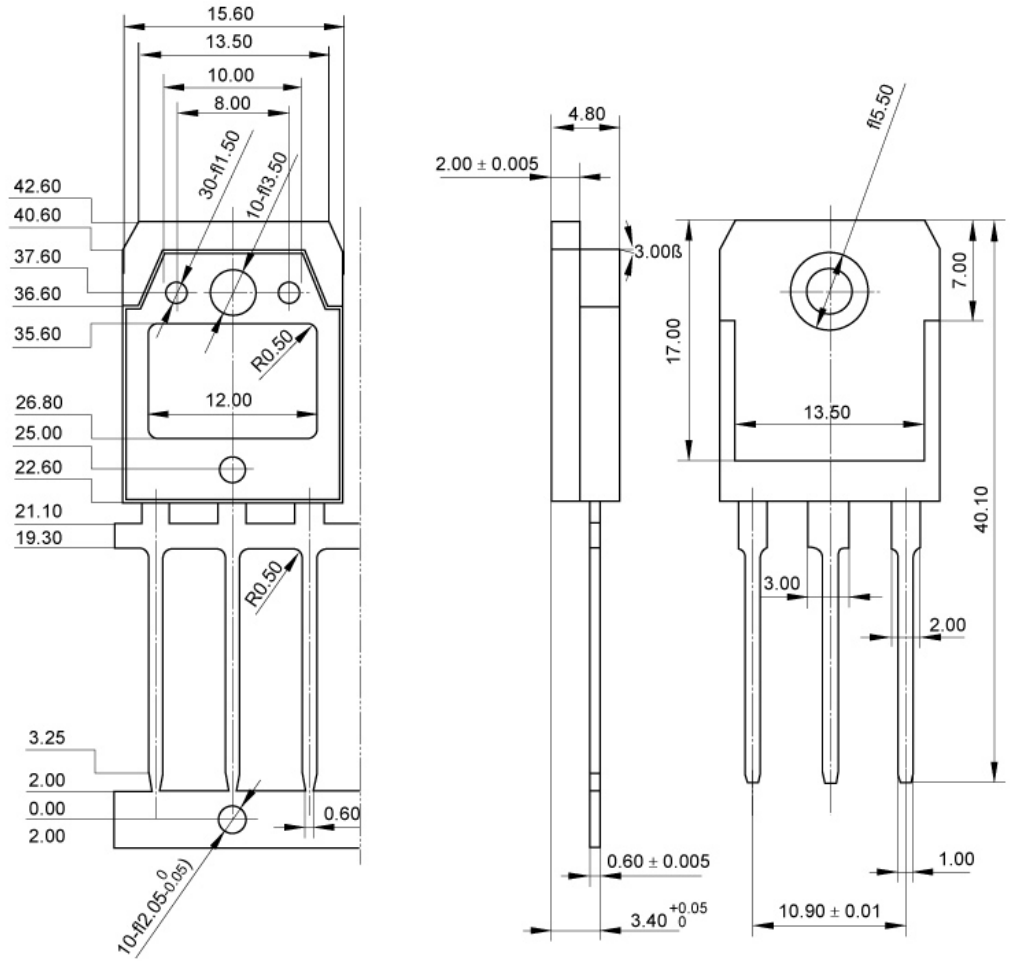


Fig.2 outline dimensions (unindicated tolerance:±0.1mm)

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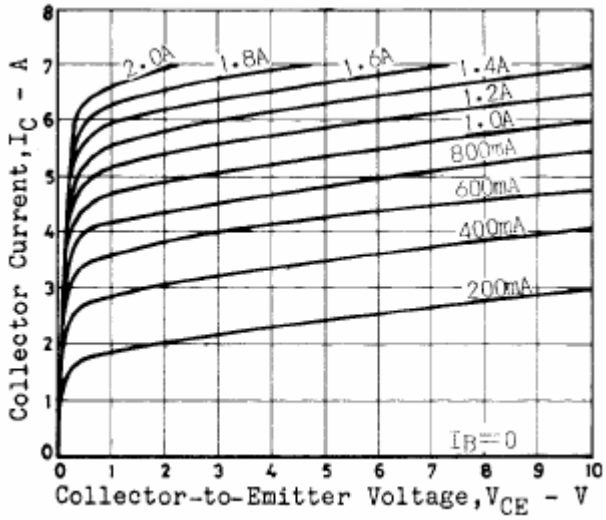


Fig.3 Static Characteristic

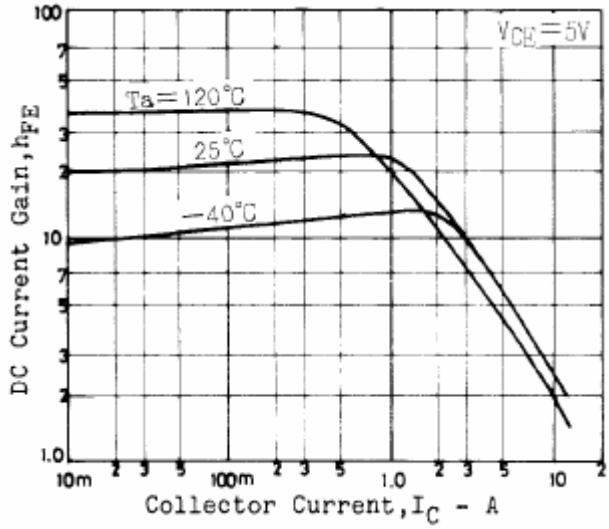


Fig.4 DC current Gain

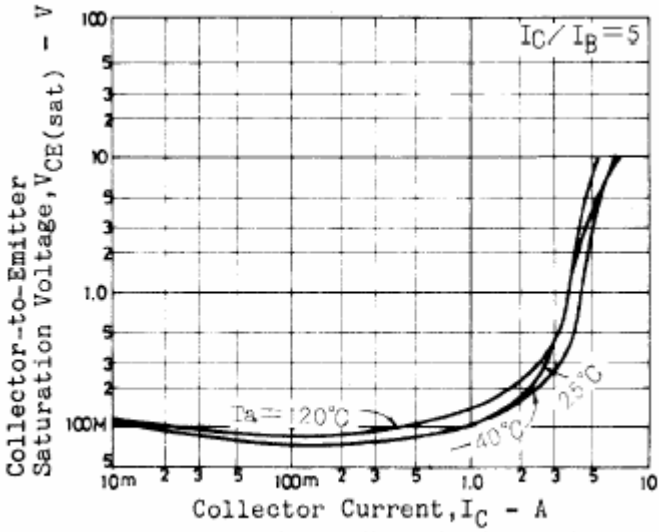


Fig.5 Collector-Emitter Saturation Voltage

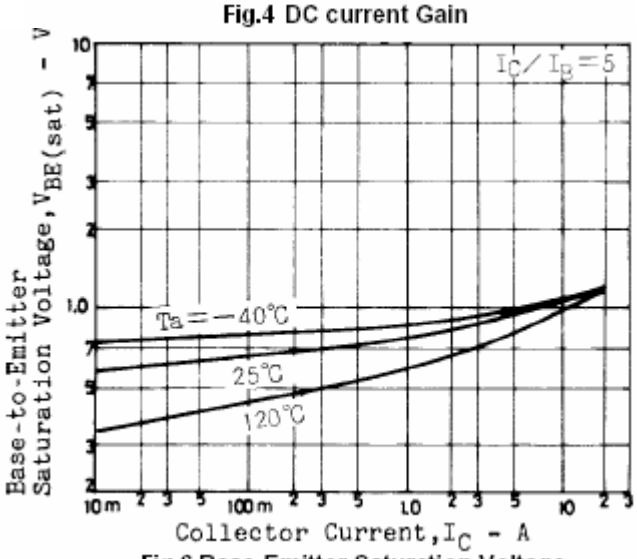


Fig.6 Base-Emitter Saturation Voltage

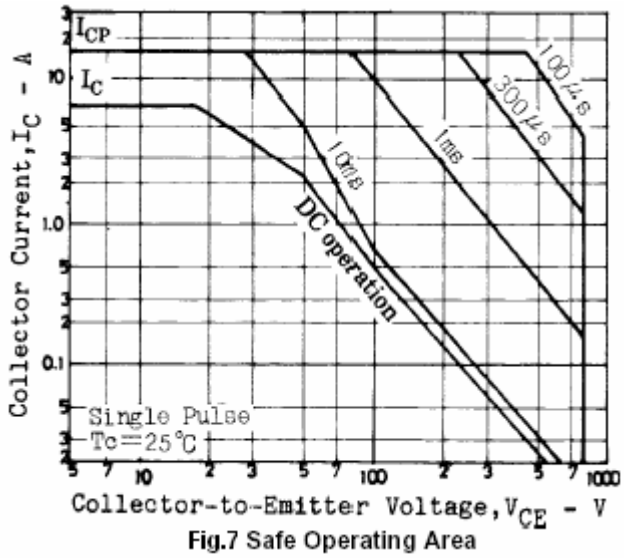


Fig.7 Safe Operating Area