

Silicon NPN Power Transistors

2SD1881

DESCRIPTION

- With TO-3PML package
- High speed
- High breakdown voltage
- High reliability
- Built in damper diode

APPLICATIONS

- Color TV horizontal deflection output
- Color display horizontal deflection output.

PINNING

PIN	DESCRIPTION
1	Base
2	Collector
3	Emitter

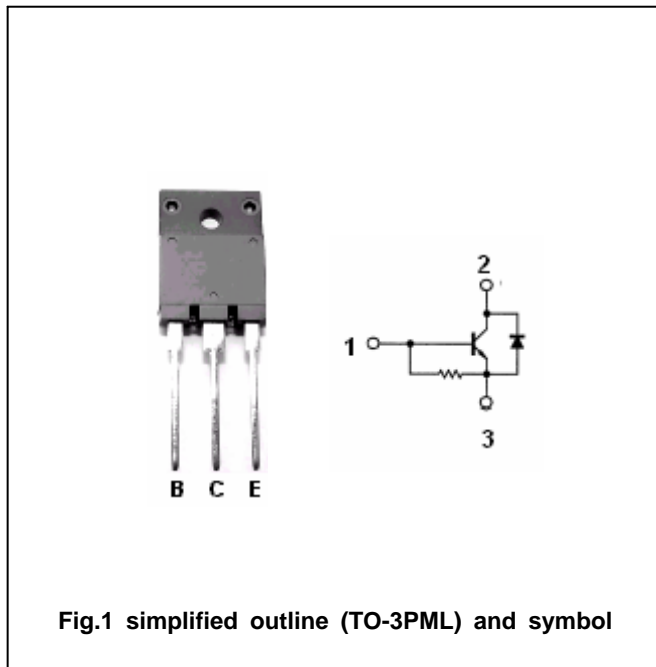


Fig.1 simplified outline (TO-3PML) and symbol

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		10	A
I_{CM}	Collector current-peak		30	A
P_C	Collector power dissipation		70	W
T_j	Junction temperature		150	
T_{stg}	Storage temperature		-55~150	

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CHARACTERISTICS

T_j=25 unless otherwise specified

SYMBOL	PARAMETER	CONDITIONS	MIN	TYP.	MAX	UNIT
V _{CEQ(SUS)}	Collector-emitter sustaining voltage	I _C =100mA ; I _B =0	800			V
V _{CEsat}	Collector-emitter saturation voltage	I _C =8A ; I _B =1.6A			5	V
V _{BEsat}	Base-emitter saturation voltage	I _C =8A ; I _B =1.6A			1.5	V
I _{CB0}	Collector cut-off current	V _{CB} =800V ; I _E =0			10	μA
I _{EB0}	Emitter cut-off current	V _{EB} =4V ; I _C =0	40		130	mA
I _{CES}	Collector cut-off current	V _{CE} =1500V			1.0	mA
h _{FE-1}	DC current gain	I _C =1A ; V _{CE} =5V	8			
h _{FE-2}	DC current gain	I _C =8A ; V _{CE} =5V	5		10	
V _F	Diode forward voltage	I _{EC} =10A			2	V
t _f	Fall time	I _C =6A; V _{CC} =200V; R _L =33.3 ; I _{B1} =1.2A; I _{B2} =-2.4A;		0.1	0.3	μs

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PACKAGE OUTLINE

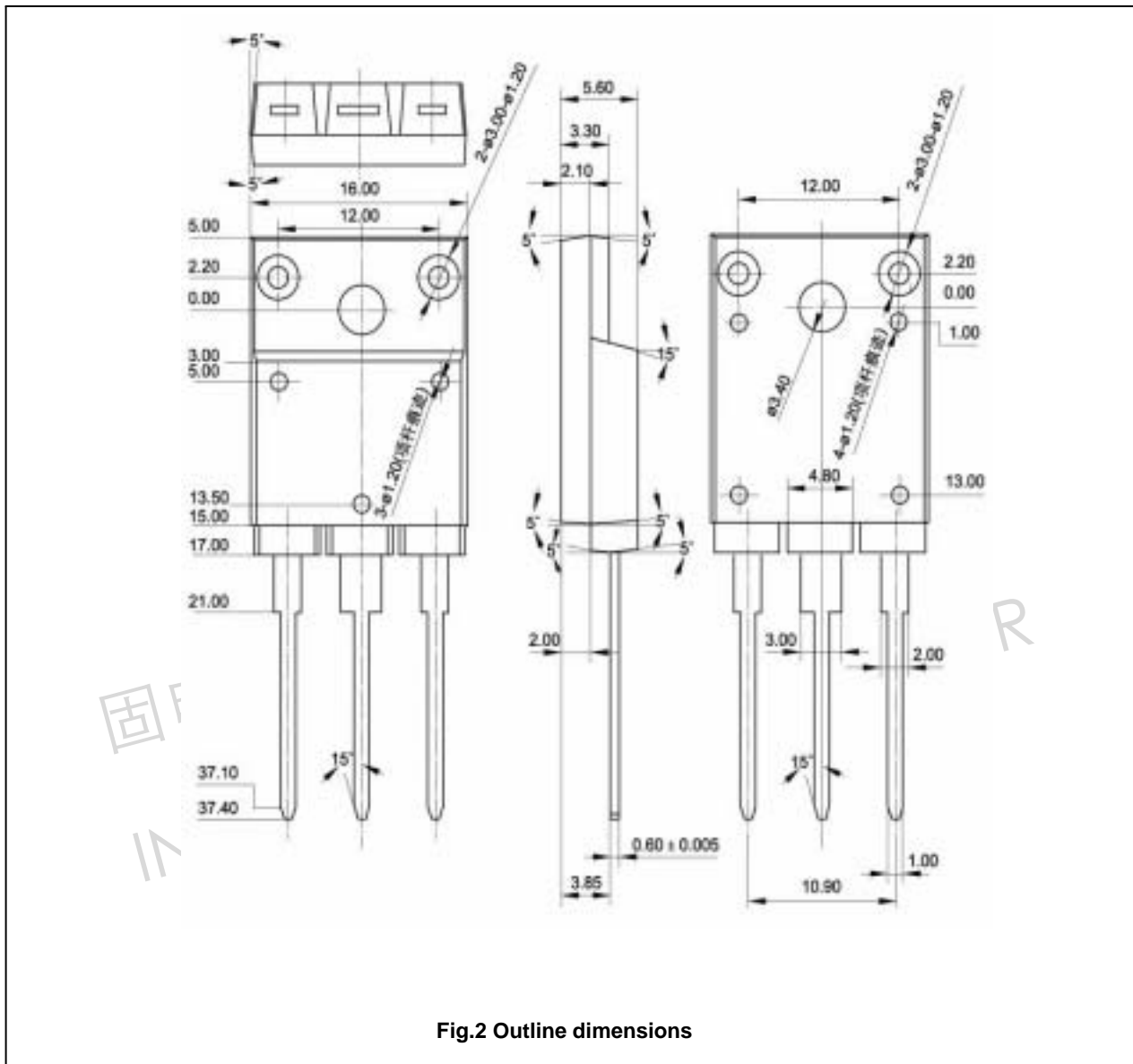


Fig.2 Outline dimensions

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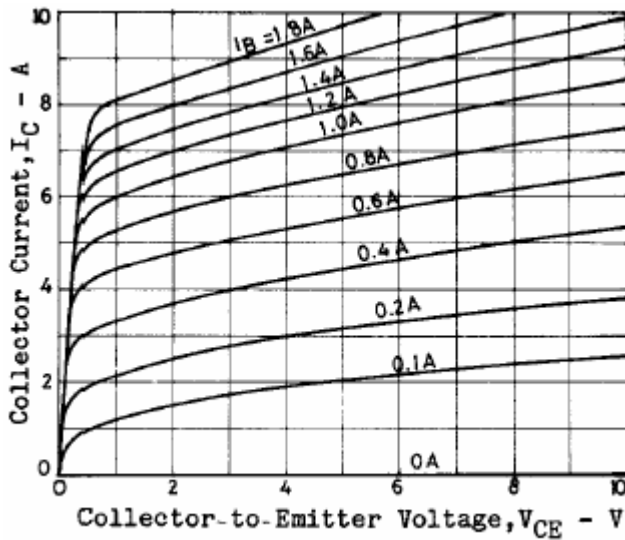


Fig.3 Static Characteristic

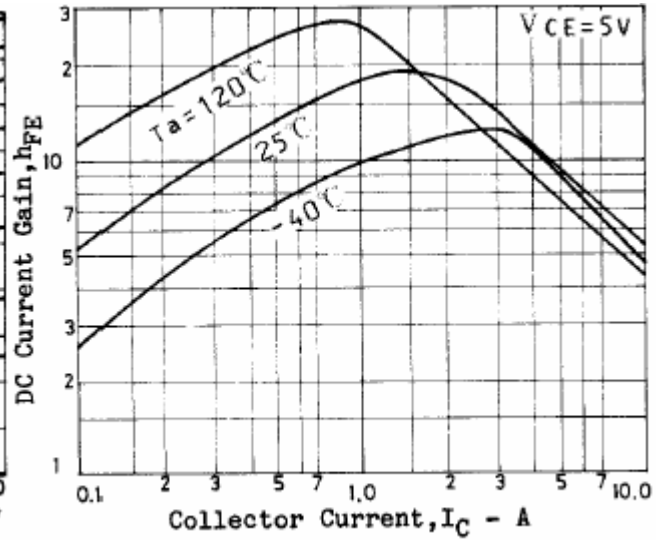


Fig.4 DC current Gain

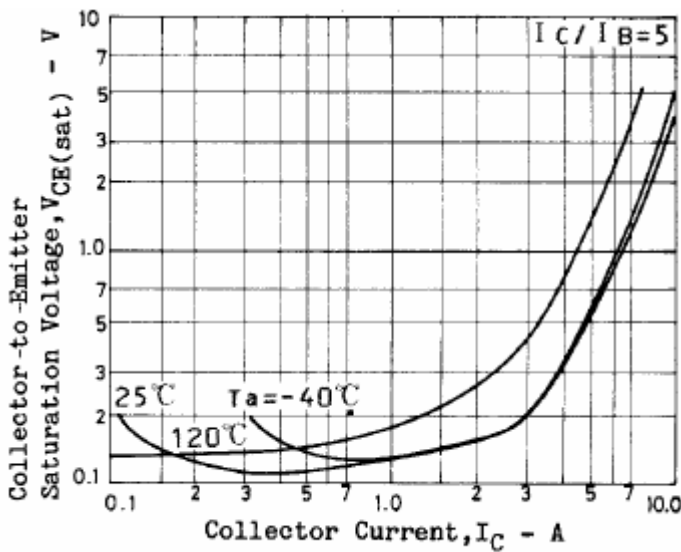


Fig.5 Collector-Emitter Saturation Voltage

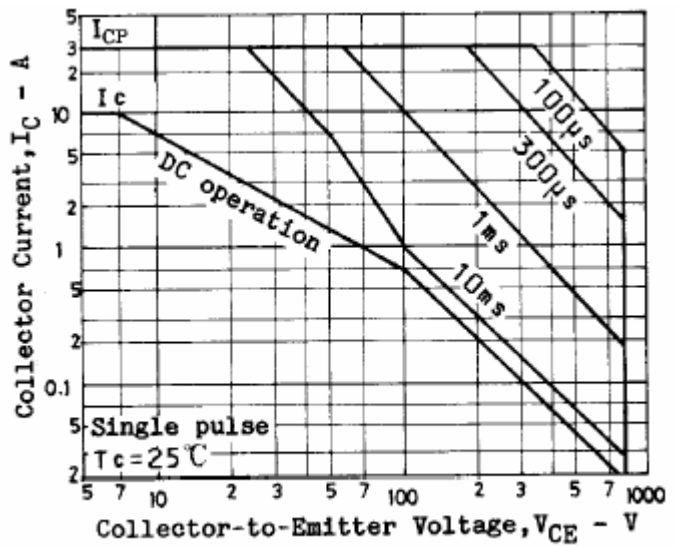


Fig.6 Safe Operating Area