

Inchange Semiconductor

Product Specification

Silicon NPN Power Transistors

2SC5250

DESCRIPTION

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

APPLICATIONS

- Character display horizontal deflection output applications

PINNING

PIN	DESCRIPTION
1	Base
2	Collector
3	Emitter

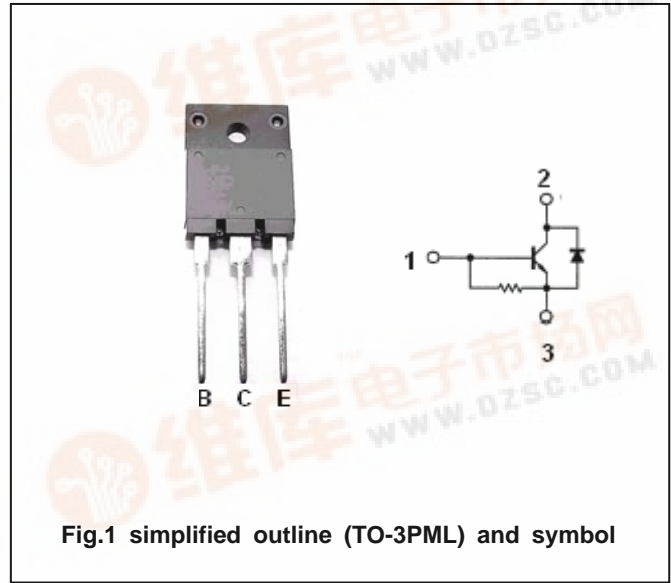


Fig.1 simplified outline (TO-3PML) and symbol

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

SYMBOL	PARAMETER	CONDITIONS	VALUE	UNIT
V_{CEO}	Collector-emitter voltage	Open base	1500	V
V_{EBO}	Emitter-base voltage	Open collector	6	V
I_C	Collector current		8	A
I_{CP}	Collector current-peak		16	A
I_D	Diode current		8	A
P_C	Collector power dissipation	$T_C=25^{\circ}\text{C}$	50	W
T_j	Junction temperature		150	$^{\circ}\text{C}$
T_{stg}	Storage temperature		-55~150	$^{\circ}\text{C}$

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CHARACTERISTICS

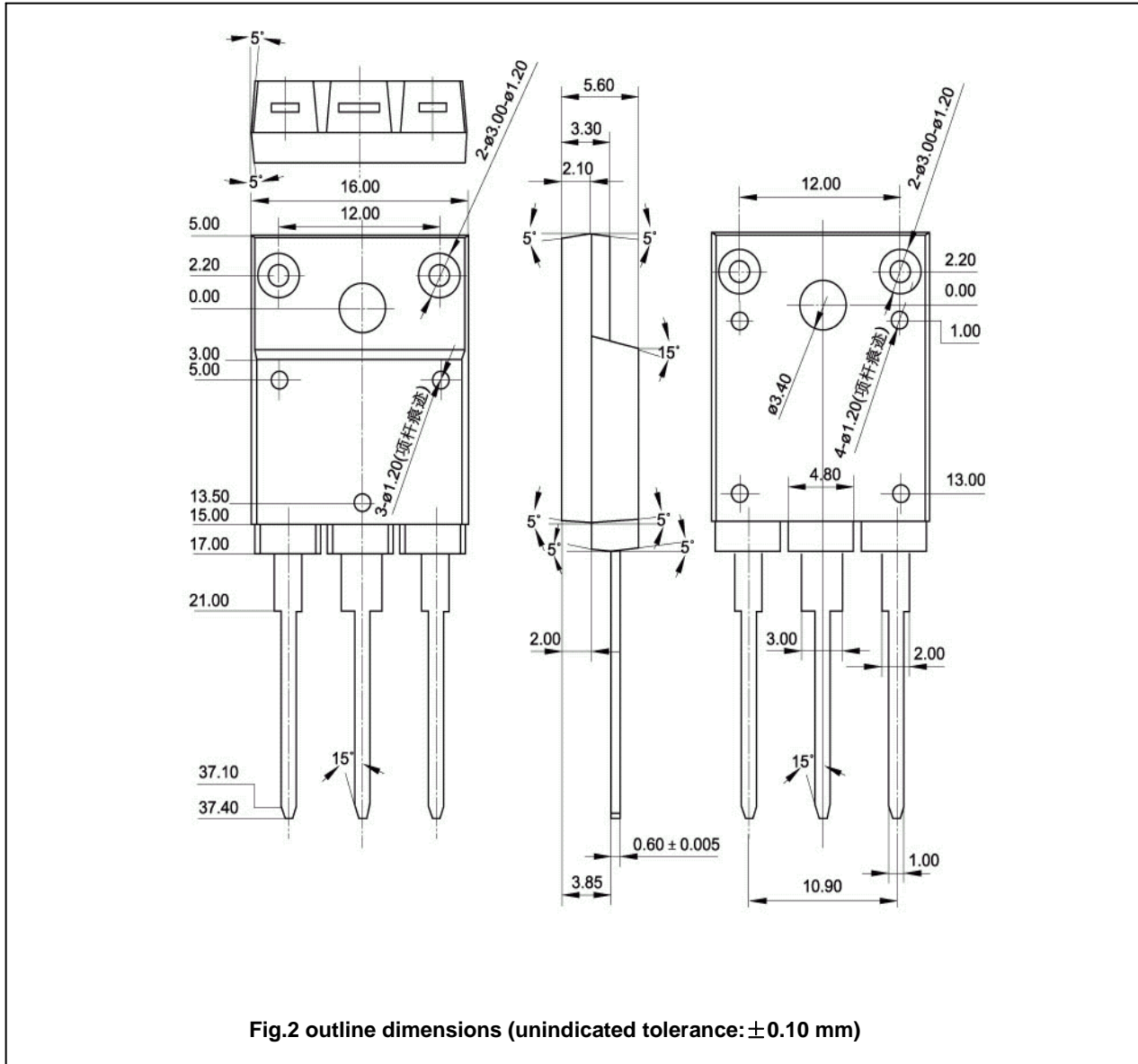
T_j=25°C unless otherwise specified

SYMBOL	PARAMETER	CONDITIONS	MIN	TYP.	MAX	UNIT
V _{(BR)EBO}	Emitter-base breakdown voltage	I _C =400mA ; I _B =0	6			V
I _{CES}	Collector cut-off current	V _{CE} =1500V; R _{BE} =0			500	μ A
h _{FE-1}	DC current gain	I _C =1A ; V _{CE} =5V	6		25	
h _{FE-2}	DC current gain	I _C =5A ; V _{CE} =5V	4		7	
V _{CE(sat)}	Collector-emitter saturation voltage	I _C =5A ; I _B =1.25A			5	V
V _{BE(sat)}	Base-emitter saturation voltage	I _C =5A ; I _B =1.25A			1.5	V
V _{ECF}	Forward voltage of damper diode	I _F =8A			2	V
t _f	Fall time	I _{CP} =5A; I _{B1} =1A; f _H =31.5kHz		0.2	0.4	μ s

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PACKAGE OUTLINE



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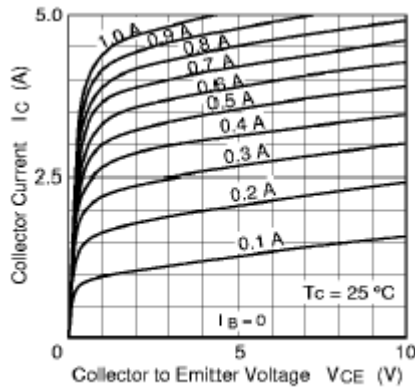


Fig.3 Static Characteristic

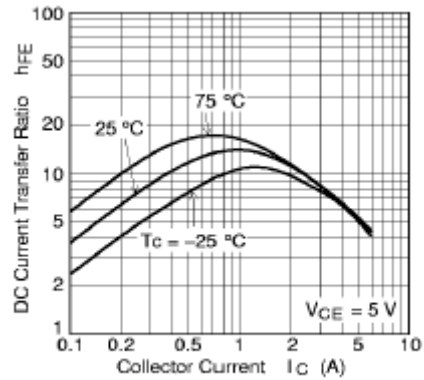


Fig.4 DC current Gain

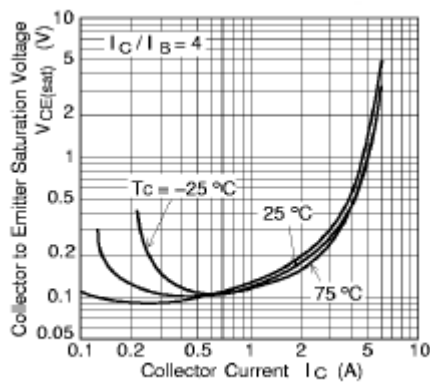


Fig.5 Collector-Emitter Saturation Voltage

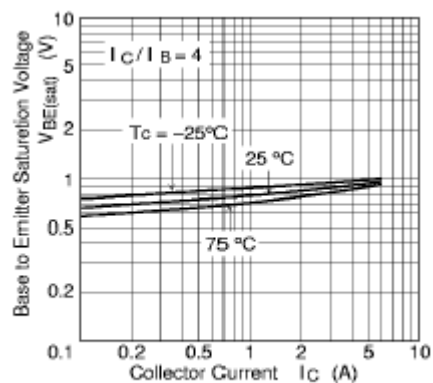


Fig.6 Base-Emitter Saturation Voltage

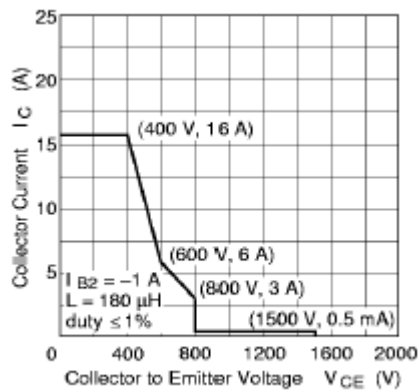


Fig.7 Safe Operating Area