

## Silicon NPN Power Transistors

2SC4923

## DESCRIPTION

- With TO-3PML package
- High speed
- High reliability
- High breakdown voltage

## APPLICATIONS

- High-definition CRT display horizontal deflection output applications

## PINNING

PIN	DESCRIPTION
1	Base
2	Collector
3	Emitter

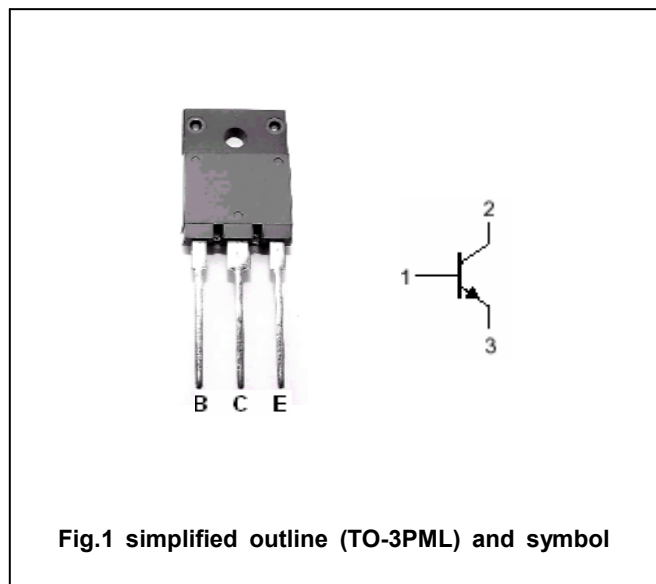


Fig.1 simplified outline (TO-3PML) and symbol

Absolute maximum ratings( $T_a = \square$ )

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		8	A
$I_{CP}$	Collector current-peak		25	A
$P_C$	Collector power dissipation		3	W
		$T_C = 25 \square$	70	
$T_j$	Junction temperature		150	$\square$
$T_{stg}$	Storage temperature		-55~150	$\square$

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## CHARACTERISTICS

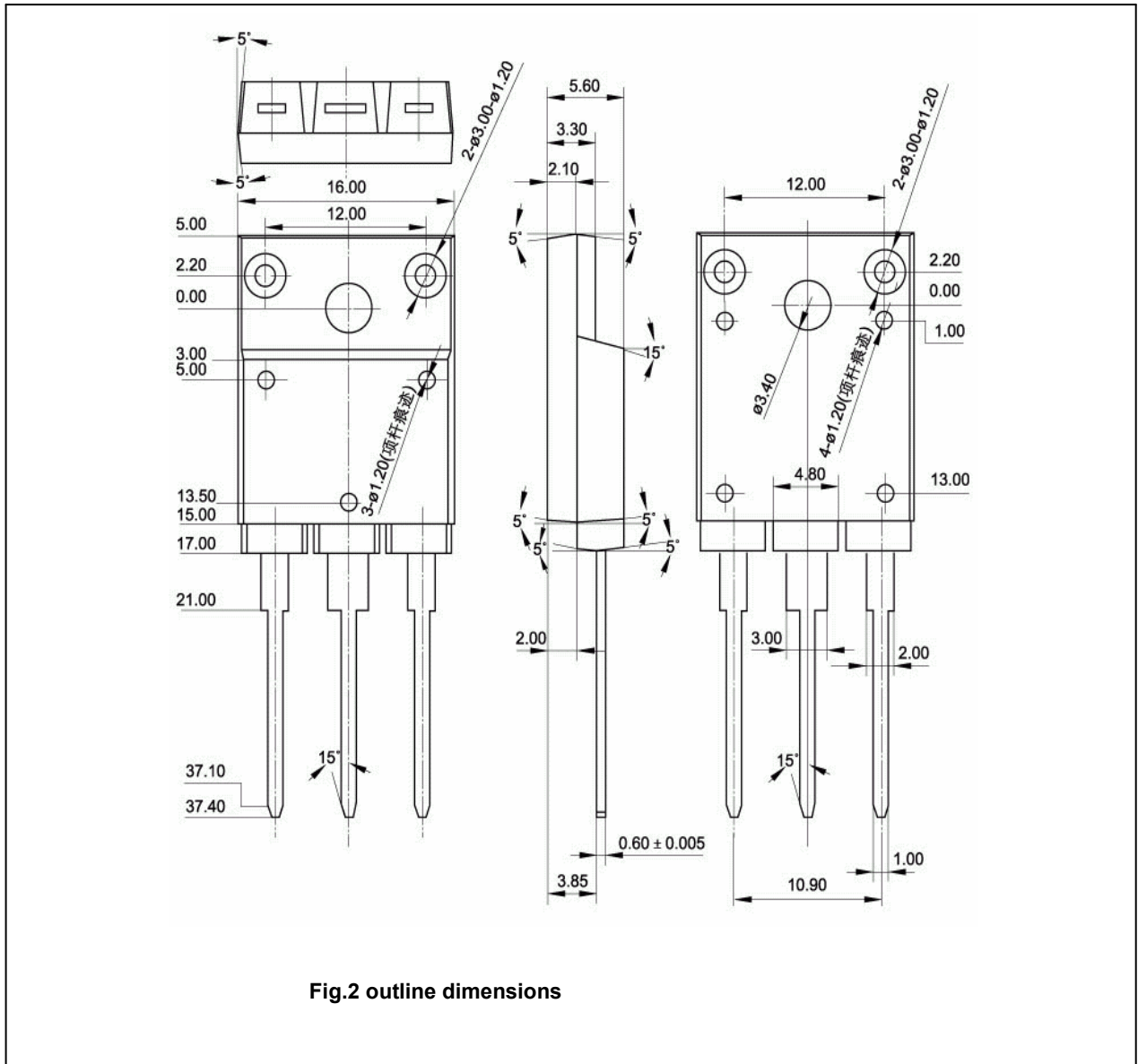
T<sub>j</sub>=25°C unless otherwise specified

SYMBOL	PARAMETER	CONDITIONS	MIN	TYP.	MAX	UNIT
V <sub>CEQ(SUS)</sub>	Collector-emitter sustaining voltage	I <sub>C</sub> =100mA ; I <sub>B</sub> =0	800			V
I <sub>CBO</sub>	Collector cut-off current	V <sub>CE</sub> =800V; I <sub>E</sub> =0			10	μA
I <sub>CES</sub>	Collector cut-off current	V <sub>EB</sub> =1500V; R <sub>BE</sub> =0			1.0	mA
I <sub>EBO</sub>	Emitter cut-off current	V <sub>CE</sub> =4V; I <sub>C</sub> =0			1.0	mA
h <sub>FE-1</sub>	DC current gain	I <sub>C</sub> =1A ; V <sub>CE</sub> =5V	8			
h <sub>FE-2</sub>	DC current gain	I <sub>C</sub> =6A ; V <sub>CE</sub> =5V	4		8	
V <sub>CE(sat)</sub>	Collector-emitter saturation voltage	I <sub>C</sub> =6A ; I <sub>B</sub> =1.5A			5	V
V <sub>BE(sat)</sub>	Base-emitter saturation voltage	I <sub>C</sub> =6A ; I <sub>B</sub> =1.5A			1.5	V
t <sub>stg</sub>	Storage time	I <sub>C</sub> =6A; I <sub>B1</sub> =1.2A; I <sub>B2</sub> =-2.4A			3	μs
t <sub>f</sub>	Fall time	I <sub>C</sub> =6A; I <sub>B1</sub> =1.2A; I <sub>B2</sub> =-2.4A		0.1	0.2	μs

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PACKAGE OUTLINE



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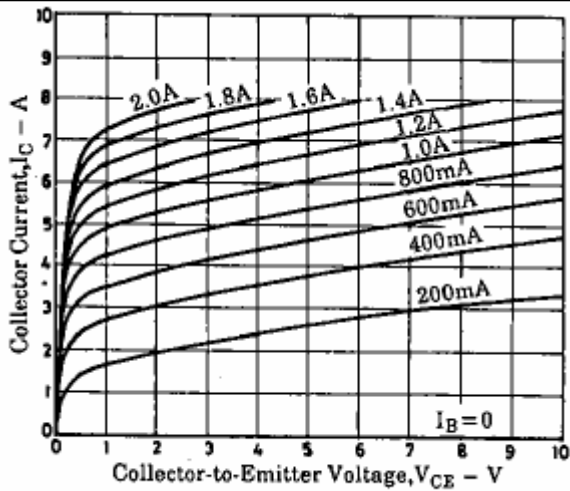


Fig.3 Static Characteristic

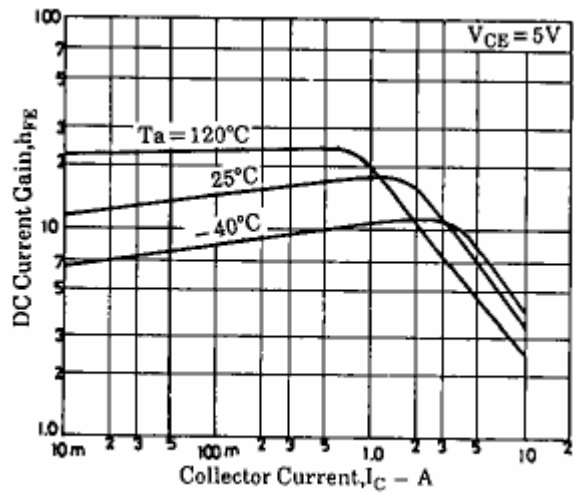


Fig.4 DC current Gain

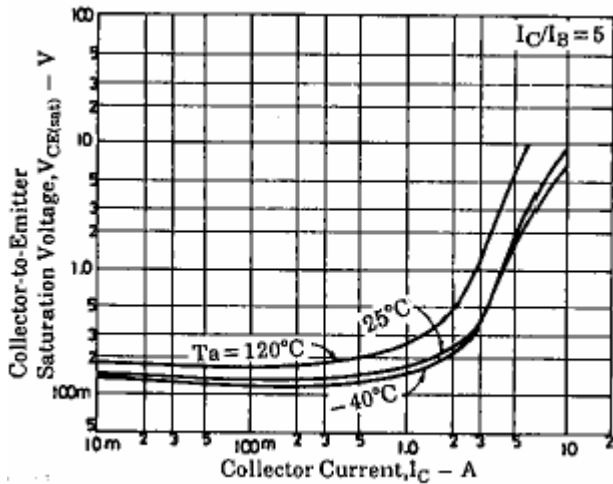


Fig.5 Collector-Emmitter Saturation Voltage

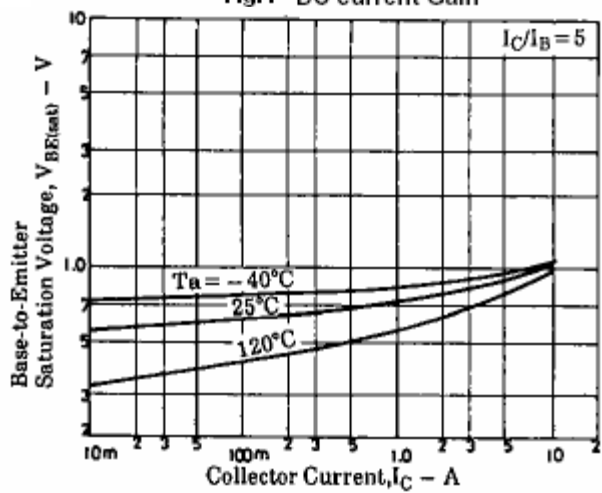


Fig.6 Base-Emmitter Saturation Voltage

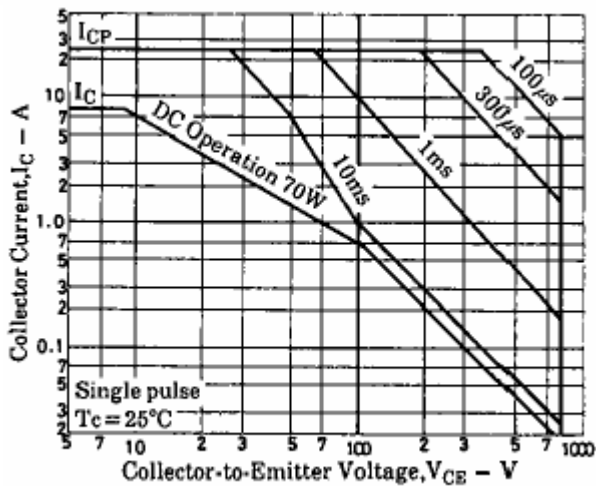


Fig.7 Safe Operating Area