

## Silicon PNP Power Transistors

2N3183

## DESCRIPTION

- With TO-3 package
- Excellent safe operating area
- Low collector saturation voltage

## APPLICATIONS

- For medium-speed switching and amplifier applications

## PINNING

PIN	DESCRIPTION
1	Base
2	Emitter
3	Collector

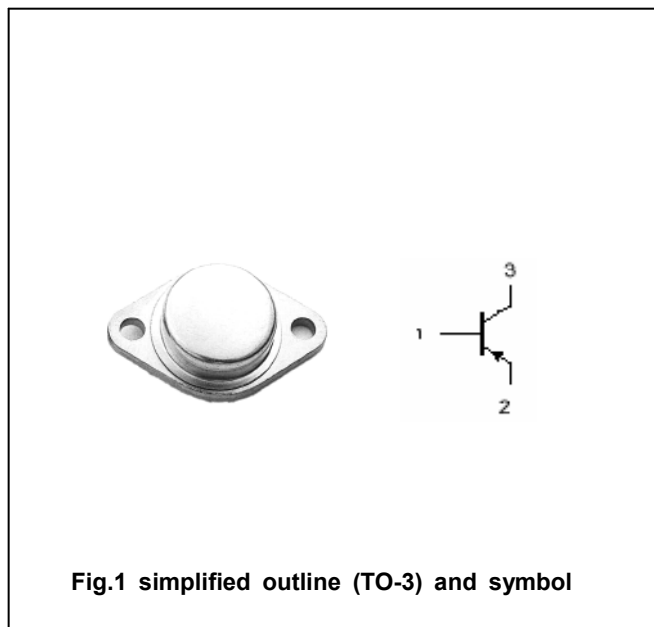


Fig.1 simplified outline (TO-3) and symbol

ABSOLUTE MAXIMUM RATINGS( $T_a=25^\circ\text{C}$ )

SYMBOL	PARAMETER	CONDITIONS	VALUE	UNIT
$V_{CBO}$	Collector-base voltage	Open emitter	-40	V
$V_{CEO}$	Collector-emitter voltage	Open base	-40	V
$V_{EBO}$	Emitter-base voltage	Open collector	-5	V
$I_C$	Collector current		-5	A
$P_C$	Collector power dissipation	$T_C=25^\circ\text{C}$	75	W
$T_j$	Junction temperature		150	$^\circ\text{C}$
$T_{stg}$	Storage temperature		-65~200	$^\circ\text{C}$

## THERMAL CHARACTERISTICS

SYMBOL	PARAMETER	VALUE	UNIT
$R_{(th)jc}$	Thermal resistance junction to case	1.17	$^\circ\text{C}/\text{W}$

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## CHARACTERISTICS

 $T_j=25^\circ\text{C}$  unless otherwise specified

SYMBOL	PARAMETER	CONDITIONS	MIN	TYP.	MAX	UNIT
$V_{CE0}$	Collector-emitter sustaining voltage	$I_C=-0.2\text{A}; I_B=0$	-40			V
$V_{CE(sat)}$	Collector-emitter saturation voltage	$I_C=-5\text{A}; I_B=-1\text{A}$			-1.5	V
$V_{BE(on)}$	Base-emitter on voltage	$I_C=-5\text{A}; V_{CE}=-4\text{V}$			-2.0	V
$I_{CE0}$	Collector cut-off current	$V_{CE}=\text{Rated } V_{CE0}; I_B=0$			-5.0	mA
$I_{CBO}$	Collector cut-off current	$V_{CB}=\text{Rated } V_{CBO}; I_E=0$			-0.1	mA
$I_{EBO}$	Emitter cut-off current	$V_{EB}=-5\text{V}; I_C=0$			-1.0	mA
$h_{FE-1}$	DC current gain	$I_C=-0.3\text{A}; V_{CE}=-4\text{V}$	30			
$h_{FE-2}$	DC current gain	$I_C=-3\text{A}; V_{CE}=-4\text{V}$	15			

PACKAGE OUTLINE

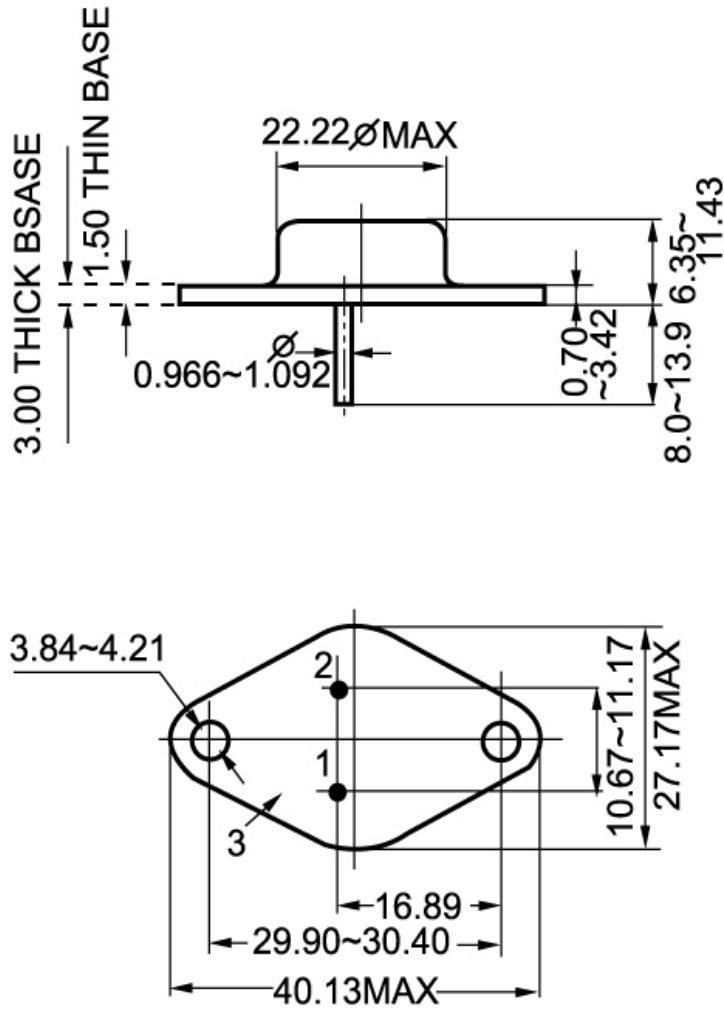


Fig.2 outline dimensions (unindicated tolerance:  $\pm 0.1$ mm)