

**Inchange Semiconductor**

**Product Specification**

**Silicon NPN Power Transistors**

**2N3232**

**DESCRIPTION**

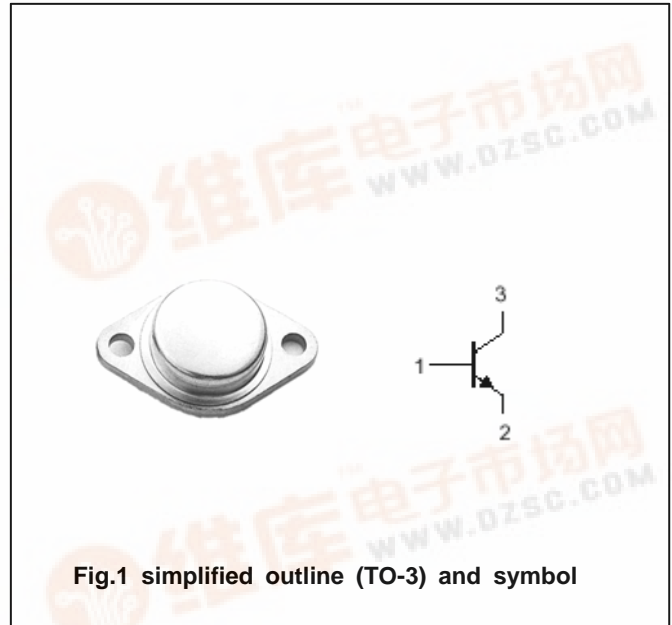
- With TO-3 package
- Excellent safe operating area
- Low collector saturation voltage

**APPLICATIONS**

- For audio amplifier and power switching

**PINNING**

PIN	DESCRIPTION
1	Base
2	Emitter
3	Collector



**ABSOLUTE MAXIMUM RATINGS(Ta=25°C)**

SYMBOL	PARAMETER	CONDITIONS	VALUE	UNIT
V <sub>CBO</sub>	Collector-base voltage	Open emitter	80	V
V <sub>CEO</sub>	Collector-emitter voltage	Open base	60	V
V <sub>EBO</sub>	Emitter-base voltage	Open collector	7	V
I <sub>C</sub>	Collector current		7.5	A
P <sub>C</sub>	Collector power dissipation	T <sub>C</sub> =25°C	115	W
T <sub>j</sub>	Junction temperature		150	°C
T <sub>stg</sub>	Storage temperature		-65~200	°C

**THERMAL CHARACTERISTICS**

SYMBOL	PARAMETER	VALUE	UNIT
R <sub>(th) jc</sub>	Thermal resistance junction to case	1.17	°C/W

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## CHARACTERISTICS

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

SYMBOL	PARAMETER	CONDITIONS	MIN	TYP.	MAX	UNIT
$V_{(BR)CEO}$	Collector-emitter breakdown voltage	$I_C=30\text{mA}; I_B=0$	60			V
$V_{CE(sat)}$	Collector-emitter saturation voltage	$I_C=5\text{A}; I_B=0.5\text{A}$			1.0	V
$V_{BE(on)}$	Base-emitter on voltage	$I_C=3\text{A}; V_{CE}=4\text{V}$			1.5	V
$I_{CEO}$	Collector cut-off current	$V_{CE}=40\text{V}; I_B=0$			0.7	mA
$I_{CBO}$	Collector cut-off current	$V_{CB}=80\text{V}; I_E=0$			0.1	mA
$I_{EBO}$	Emitter cut-off current	$V_{EB}=7\text{V}; I_C=0$			0.1	mA
$h_{FE}$	DC current gain	$I_C=5\text{A}; V_{CE}=10\text{V}$	18		55	

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PACKAGE OUTLINE

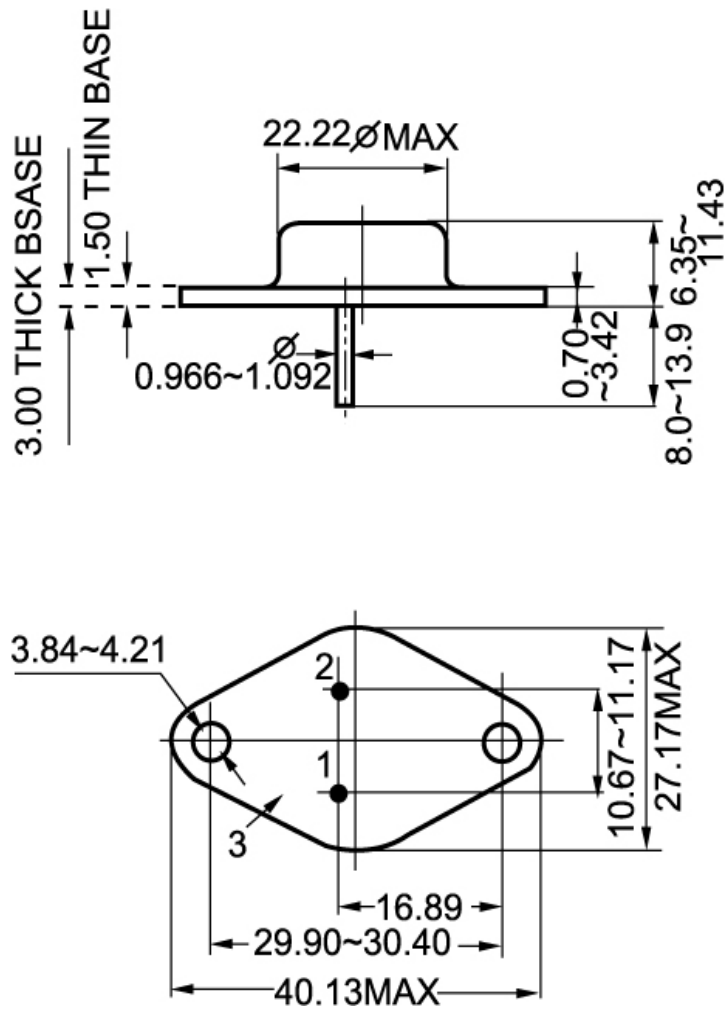


Fig.2 outline dimensions (unindicated tolerance:  $\pm 0.1$ mm)