

Silicon PNP Power Transistors

2SB713

DESCRIPTION

- With TO-3PN package
- Wide area of safe operation
- Excellent good linearity of  $h_{FE}$

APPLICATIONS

- For high power amplifier applications

PINNING

PIN	DESCRIPTION
1	Base
2	Collector;connected to mounting base
3	Emitter

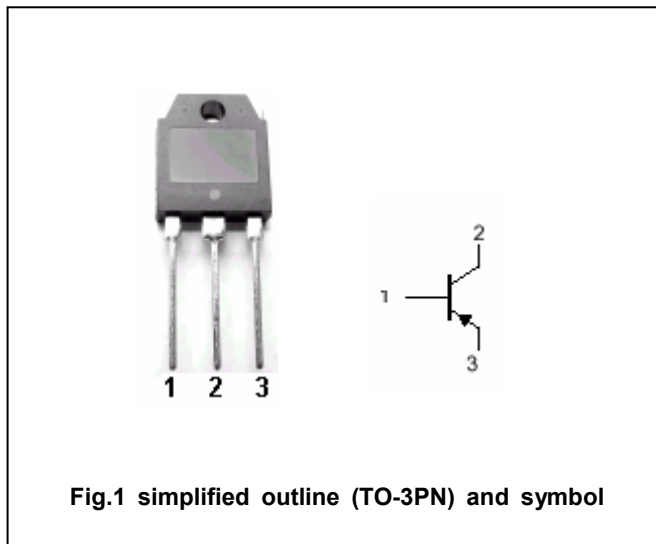


Fig.1 simplified outline (TO-3PN) and symbol

Absolute maximum ratings( $T_c=25^\circ$ )

SYMBOL	PARAMETER	CONDITIONS	VALUE	UNIT
$V_{CBO}$	Collector-base voltage	Open emitter	-200	V
$V_{CEO}$	Collector-emitter voltage	Open base	-140	V
$V_{EBO}$	Emitter-base voltage	Open collector	-5	V
$I_C$	Collector current (DC)		-9	A
$I_{CP}$	Collector current (Pulse)		-15	A
$P_C$	Collector power dissipation	$T_c=25^\circ$	100	W
$T_j$	Junction temperature		150	$^\circ$
$T_{stg}$	Storage temperature		-55~150	$^\circ$

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## CHARACTERISTICS

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

SYMBOL	PARAMETER	CONDITIONS	MIN	TYP.	MAX	UNIT
V <sub>CEsat</sub>	Collector-emitter saturation voltage	I <sub>C</sub> =-7A; I <sub>B</sub> =-0.7A			-2.0	V
V <sub>BE</sub>	Base-emitter on voltage	I <sub>C</sub> =-7A; V <sub>CE</sub> =-5V			-1.8	V
I <sub>CBO</sub>	Collector cut-off current	V <sub>CB</sub> =-140V; I <sub>E</sub> =0			-50	μA
I <sub>EBO</sub>	Emitter cut-off current	V <sub>EB</sub> =-3V; I <sub>C</sub> =0			-50	μA
h <sub>FE-1</sub>	DC current gain	I <sub>C</sub> =-20mA; V <sub>CE</sub> =-5V	20			
h <sub>FE-2</sub>	DC current gain	I <sub>C</sub> =-1A; V <sub>CE</sub> =-5V	40		200	
h <sub>FE-3</sub>	DC current gain	I <sub>C</sub> =-7A; V <sub>CE</sub> =-5V	15			
f <sub>T</sub>	Transition frequency	I <sub>C</sub> =-0.5A; V <sub>CE</sub> =-5V		7		MHz
C <sub>OB</sub>	Collector output capacitance	f=1MHz; V <sub>CB</sub> =-10V		220		pF

◆ h<sub>FE-2</sub> Classifications

R	Q	P
40-80	60-120	100-200

