

Silicon NPN Power Transistors

2SC2581

DESCRIPTION

- With TO-3PN package
- Complement to type 2SA1106
- High power dissipation
- High current capability

APPLICATIONS

- Audio power amplifier
- DC-DC converter

PINNING

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

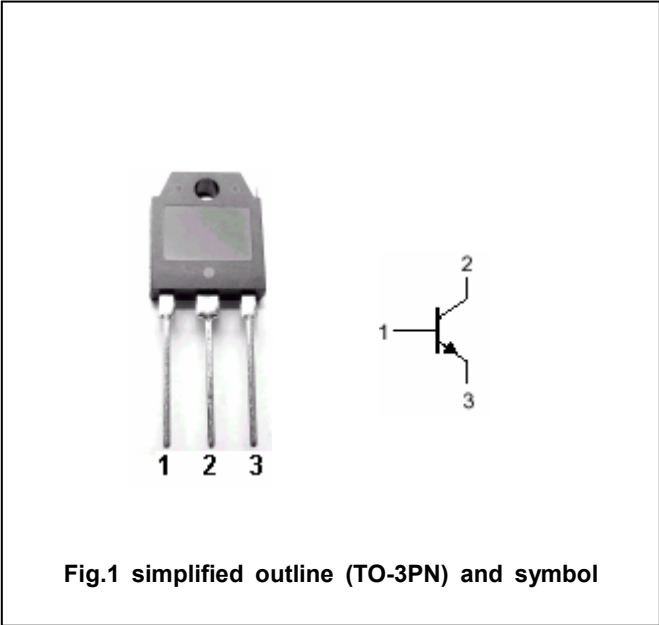


Fig.1 simplified outline (TO-3PN) and symbol

Absolute maximum ratings(Ta=)

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	6	V
I_C	Collector current		10	A
P_C	Collector power dissipation	$T_C=25$	100	W
T_j	Junction temperature		150	
T_{stg}	Storage temperature		-55~150	

Silicon NPN Power Transistors**2SC2581****CHARACTERISTICS****T_j=25** unless otherwise specified

SYMBOL	PARAMETER	CONDITIONS	MIN	TYP.	MAX	UNIT
V _{(BR)CEO}	Collector-emitter breakdown voltage	I _C =25mA ; I _B =0	140			V
V _{(BR)CBO}	Collector-base breakdown voltage	I _C =1mA ; I _E =0	200			V
V _{(BR)EBO}	Emitter-base breakdown voltage	I _E =1mA ; I _C =0	6			V
V _{CEsat}	Collector-emitter saturation voltage	I _C =5A; I _B =0.5A			2.0	V
I _{CBO}	Collector cut-off current	V _{CB} =200V; I _E =0			100	μA
I _{EBO}	Emitter cut-off current	V _{EB} =6V; I _C =0			100	μA
h _{FE}	DC current gain	I _C =3A ; V _{CE} =4V	50			
f _T	Transition frequency	I _C =0.5A ; V _{CE} =10V		20		MHz

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The technical drawing shows the following dimensions:

- Overall Width:** 15.60
- Internal Widths:** 13.50, 10.00, 8.00
- Vertical Dimensions (Left Side View):** 42.60, 40.60, 37.60, 36.60, 35.60, 26.80, 25.00, 22.60, 21.10, 19.30, 3.25, 2.00, 0.00, 2.00
- Central Features:**
 - Top hole: 30- ϕ 1.50
 - Middle hole: 10- ϕ 3.50
 - Bottom hole: 10- ϕ 2.05 (+0.05/-0)
 - Rectangular cutout: 12.00 wide, R0.50 fillet
- Side View Dimensions:**
 - Top flange thickness: 4.80
 - Flange offset: 2.00 $\pm$ 0.005
 - Flange radius: 3.00R
 - Main body height: 17.00
 - Base height: 40.10
 - Base width: 13.50
 - Base offset: 3.00
 - Base fillet: R0.50
 - Base hole: 10- ϕ 2.05 (+0.05/-0)
 - Base offset from center: 0.60
 - Base hole position: 10.90 $\pm$ 0.01
 - Base hole diameter: 2.00
 - Base hole offset: 1.00
 - Base hole tolerance: 0.60 $\pm$ 0.005
 - Base hole position tolerance: 3.40 $\pm$ 0.05