

Silicon NPN Power Transistors

2SC2307

DESCRIPTION

- With TO-3PN package
- High voltage ,high speed

APPLICATIONS

- For power switching applications

PINNING

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

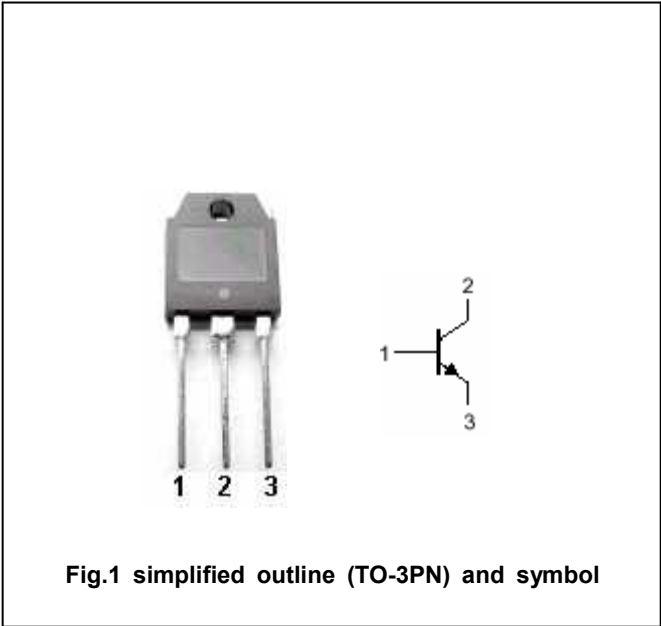


Fig.1 simplified outline (TO-3PN) and symbol

Absolute maximum ratings(Ta=25)

SYMBOL	PARAMETER	CONDITIONS	MAX	UNIT
V_{CBO}	Collector-base voltage	Open emitter	500	V
V_{CEO}	Collector-emitter voltage	Open base	400	V
V_{EBO}	Emitter-base voltage	Open collector	7	V
I_C	Collector current (DC)		12	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**2SC2307****CHARACTERISTICS****T_j=25** unless otherwise specified

SYMBOL	PARAMETER	CONDITIONS	MIN	TYP.	MAX	UNIT
$V_{(BR)CEO}$	Collector-emitter breakdown voltage	$I_C=25mA ; I_B=0$	400			V
$V_{(BR)CBO}$	Collector-base breakdown voltage	$I_C=1mA ; I_E=0$	500			V
$V_{(BR)EBO}$	Emitter-base breakdown voltage	$I_E=1mA ; I_C=0$	7			V
V_{CEsat}	Collector-emitter saturation voltage	$I_C=7A ; I_B=1.4A$			0.5	V
V_{BEsat}	Base-emitter saturation voltage	$I_C=7A ; I_B=1.4A$			1.3	V
I_{CBO}	Collector cut-off current	$V_{CB}=500V ; I_E=0$			100	μA
I_{EBO}	Emitter cut-off current	$V_{EB}=7V ; I_C=0$			100	μA
h_{FE}	DC current gain	$I_C=7A ; V_{CE}=4V$	10			
f_T	Transition frequency	$I_C=1A ; V_{CE}=12V$		18		MHz

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The technical drawing shows two views of a mechanical component. The left view is a front elevation with vertical dimension lines on the left indicating heights from the base: 2.00, 0.00, 2.00, 3.25, 19.30, 21.10, 22.60, 25.00, 26.80, 35.60, 36.60, 37.60, 40.60, and 42.60. Horizontal dimensions at the top are 15.60, 13.50, 10.00, and 8.00. It features three holes in the upper section labeled 30-H1.50, 10-H3.50, and R0.50. A central rectangular cutout has a width of 12.00. The lower section has a hole labeled 10-H2.05+0.05/-0.60 and a fillet radius R0.50. The right view is a side profile showing a total height of 40.10, a top flange thickness of 3.00±0.003, and a main body width of 13.50. It includes a hole with diameter φ5.50. The bottom of the part has a width of 10.90±0.01 and a depth of 3.40^{+0.05}/₀. Other side dimensions include 4.80, 2.00±0.005, 17.00, 7.00, 3.00, 2.00, 0.60±0.005, and 1.00.