

Silicon NPN Power Transistors

2SC2305

DESCRIPTION

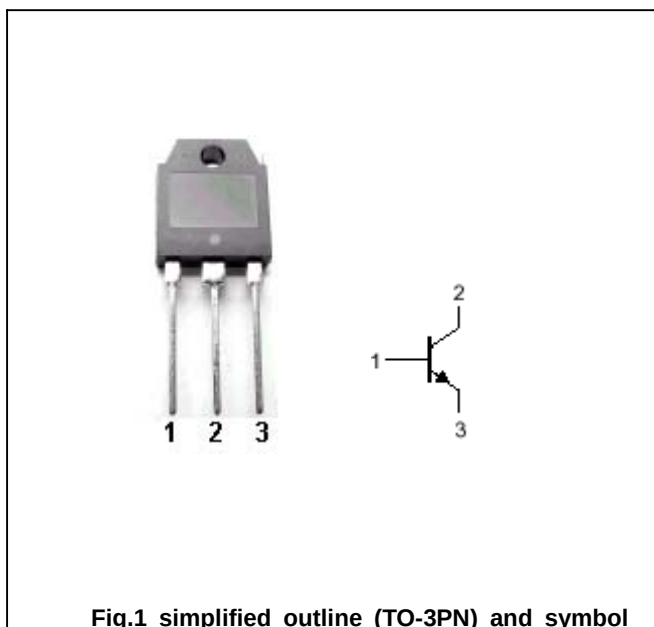
- With TO-3PN package
- High breakdown voltage
- Fast switching speed
- Wide safe operating area

APPLICATIONS

- For switching regulator applications

PINNING

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



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Absolute maximum ratings ($T_a=25^\circ\text{C}$)

SYMBOL	PARAMETER	CONDITIONS	VALUE	UNIT
V_{CBO}	Collector-base voltage	Open emitter	400	V
V_{CEO}	Collector-emitter voltage	Open base	400	V
V_{EBO}	Emitter-base voltage	Open collector	8	V
I_C	Collector current (DC)		7	A
I_{CP}	Collector current (Pulse)		14	A
I_B	Base current (DC)		3	A
P_C	Collector power dissipation	$T_C=25^\circ\text{C}$	80	W
T_j	Junction temperature		150	$^\circ\text{C}$
T_{stg}	Storage temperature		-55~150	$^\circ\text{C}$

Silicon NPN Power Transistors**2SC2305****CHARACTERISTICS**T_j=25°C unless otherwise specified

SYMBOL	PARAMETER	CONDITIONS	MIN	TYP.	MAX	UNIT
V _{CEO}	Collector-emitter breakdown voltage	I _C =10mA ; R _{BE} =∞	400			V
V _{CBO}	Collector-base breakdown voltage	I _C =1m A; I _E =0	400			V
V _{EBO}	Emitter-base breakdown voltage	I _E =1m A; I _C =0	7			V
V _{CEsat}	Collector-emitter saturation voltage	I _C =4A; I _B =0.8A			1.0	V
V _{BEsat}	Base-emitter saturation voltage	I _C =4A; I _B =0.8A			1.5	V
I _{CBO}	Collector cut-off current	V _{CB} =400V; I _E =0			10	μ A
I _{EBO}	Emitter cut-off current	V _{EB} =5V; I _C =0			10	μ A
h _{FE-1}	DC current gain	I _C =0.8A ; V _{CE} =5V	15		50	
h _{FE-2}	DC current gain	I _C =4A ; V _{CE} =5V	8			

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PACKAGE OUTLINE

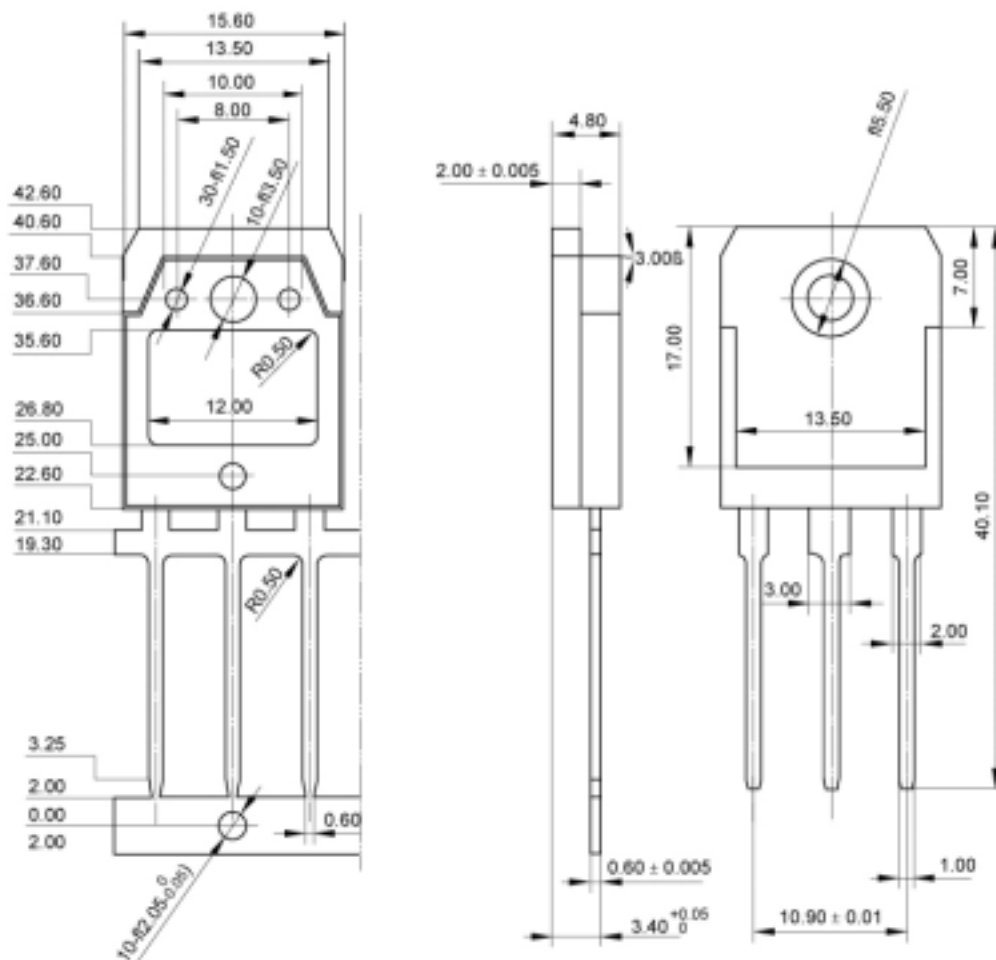


Fig.2 outline dimensions (unindicated tolerance: ± 0.10 mm)