

Silicon NPN Power Transistors

2SC4157

DESCRIPTION

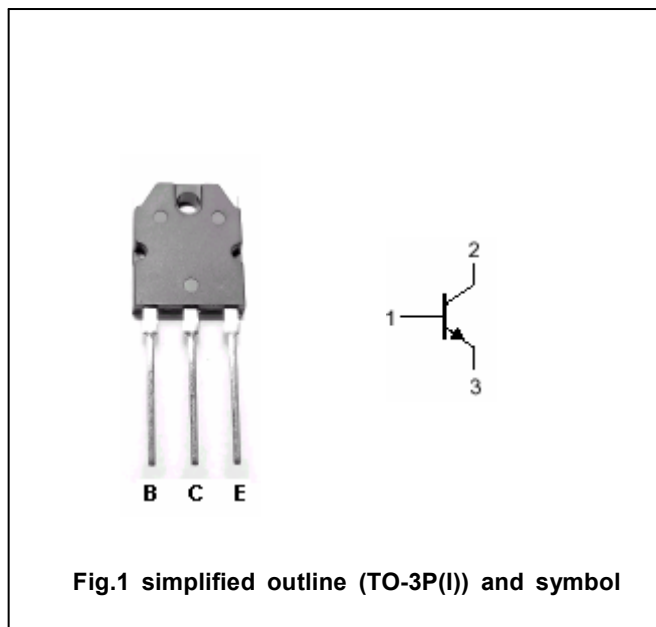
- With TO-3P(I) package
- High V_{CEO}
- High speed switching

APPLICATIONS

- Switching regulator and high voltage switching applications
- High speed DC-DC converter applications

PINNING

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

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

SYMBOL	PARAMETER	CONDITIONS	VALUE	UNIT
V_{CBO}	Collector-base voltage	Open emitter	600	V
V_{CEO}	Collector-emitter voltage	Open base	450	V
V_{EBO}	Emitter-base voltage	Open collector	8	V
I_C	Collector current-DC		10	A
I_{CM}	Collector current-peak		20	A
I_B	Base current		5	A
P_T	Total power dissipation	$T_C=25^\circ\text{C}$	100	W
T_j	Junction temperature		150	$^\circ\text{C}$
T_{stg}	Storage temperature		-55~150	$^\circ\text{C}$

Silicon NPN Power Transistors**2SC4157****CHARACTERISTICS****T_j=25°C unless otherwise specified**

SYMBOL	PARAMETER	CONDITIONS	MIN	TYP.	MAX	UNIT
V _{(BR)CEO}	Collector-emitter breakdown voltage	I _C =10mA, I _B =0	450			V
V _{(BR)CBO}	Collector-base breakdown voltage	I _C =1mA, I _E =0	600			V
V _{CEsat}	Collector-emitter saturation voltage	I _C =5A; I _B =1A			1.0	V
V _{BEsat}	Base-emitter saturation voltage	I _C =5A; I _B =1A			2.0	V
I _{CBO}	Collector cut-off current	V _{CB} =500V; I _E =0			100	μA
I _{EBO}	Emitter cut-off current	V _{EB} =8V; I _C =0			1.0	mA
h _{FE}	DC current gain	I _C =5A; V _{CE} =5V	15			

Switching times

t _r	Rise time	V _{CC} ≈200V I _{B1} =-I _{B2} =0.5A; R _L =40Ω			0.5	μs
t _{stg}	Storage time				2.5	μs
t _f	Fall time				0.5	μs

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PACKAGE OUTLINE

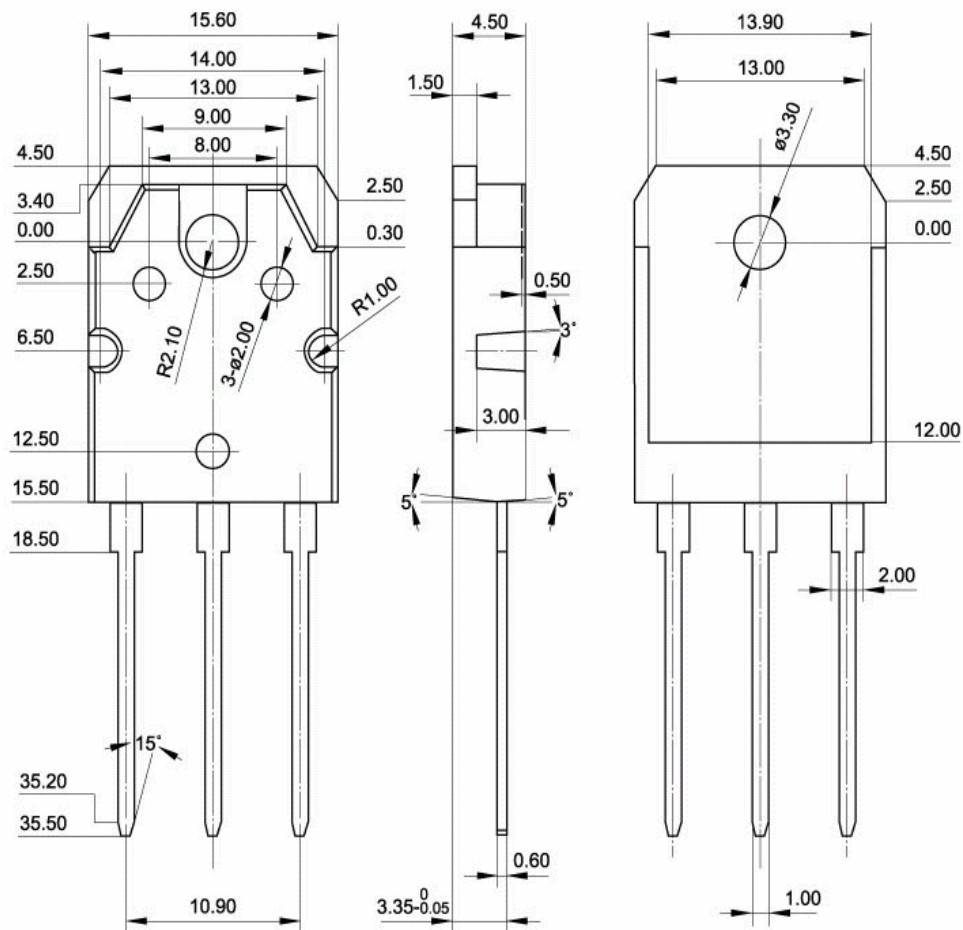


Fig.2 Outline dimensions(unindicated tolerance:±0.10 mm)