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

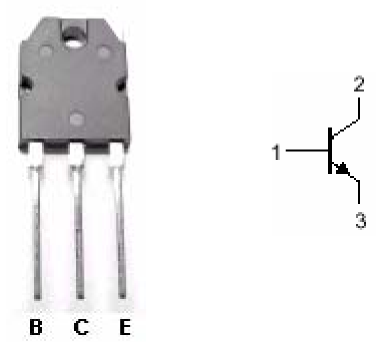

Fig.1 simplified outline (TO-3P(I)) and symbol

Absolute maximum ratings(Ta=25℃)

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℃	100	W
T_j	Junction temperature		150	℃
T_{stg}	Storage temperature		-55~150	℃

CHARACTERISTICS

Tj=25℃ 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

PACKAGE OUTLINE

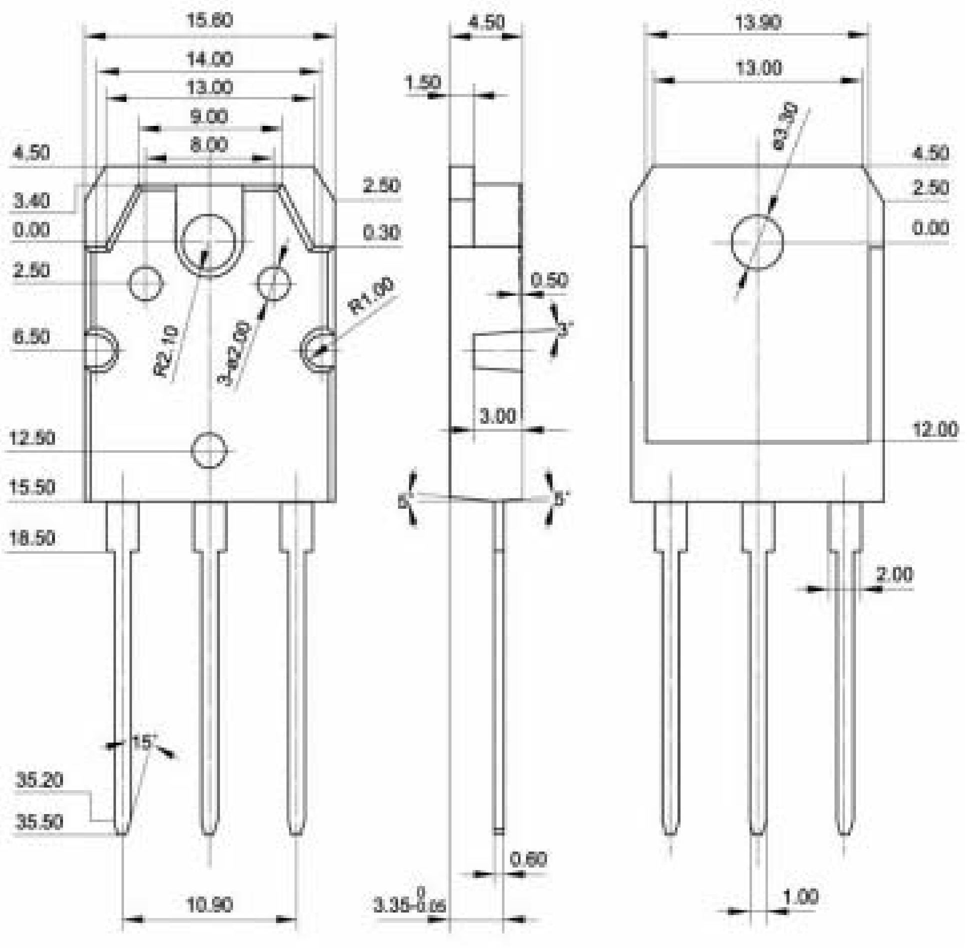

Fig.2 Outline dimensions(unindicated tolerance:±0.10 mm)