Silicon NPN Power Transistors 2SC4052

DESCRIPTION

- With ITO-220 package
- Switching power transistor

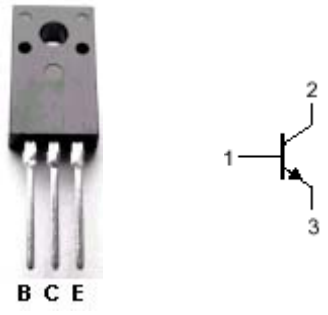


Fig.1 simplified outline (ITO-220) and symbol

PINNING

PIN	DESCRIPTION
1	Base
2	Collector
3	Emitter

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	7	V
I_C	Collector current		3	A
I_{CM}	Collector current-Peak		6	A
I_B	Base current		1	A
I_{BM}	Base current-Peak		2	A
P_T	Total power dissipation	T_C=25℃	25	W
T_j	Junction temperature		150	℃
T_{stg}	Storage temperature		-55~150	℃

THERMAL CHARACTERISTICS

SYMBOL	PARAMETER	MAX	UNIT
$R_{th\ j\text{-}C}$	Thermal resistance junction to case	5.0	℃/W

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CHARACTERISTICS

Tj=25℃ unless otherwise specified

SYMBOL	PARAMETER	CONDITIONS	MIN	TYP.	MAX	UNIT
$V_{CEO(SUS)}$	Collector-emitter sustaining voltage	I_C=0.1A ;I_B=0	450			V
V_{CEsat}	Collector-emitter saturation voltage	I_C=1.5A; I_B=0.3A			1.0	V
V_{BEsat}	Emitter-base saturation voltage	I_C=1.5A; I_B=0.3A			1.5	V
I_{CBO}	Collector cut-off current	At rated volatge			0.1	mA
I_{CEO}	Collector cut-off current					
I_{EBO}	Emitter cut-off current	At rated volatge			0.1	mA
h_{FE-1}	DC current gain	I_C=1.5A ; V_{CE}=5V	10			
h_{FE-2}	DC current gain	I_C=1mA ; V_{CE}=5V	5			
f_T	Transition frequency	I_C=0.3A ; V_{CE}=10V		20		MHz
t_{on}	Turn-on time	I_C=1.5A;I_{B1}=0.3A I_{B2}=0.6A ,R_L=100Ω V_{BB2}=4V			0.5	μs
t_s	Storage time				2.0	μs
t_f	Fall time				0.2	μs

PACKAGE OUTLINE

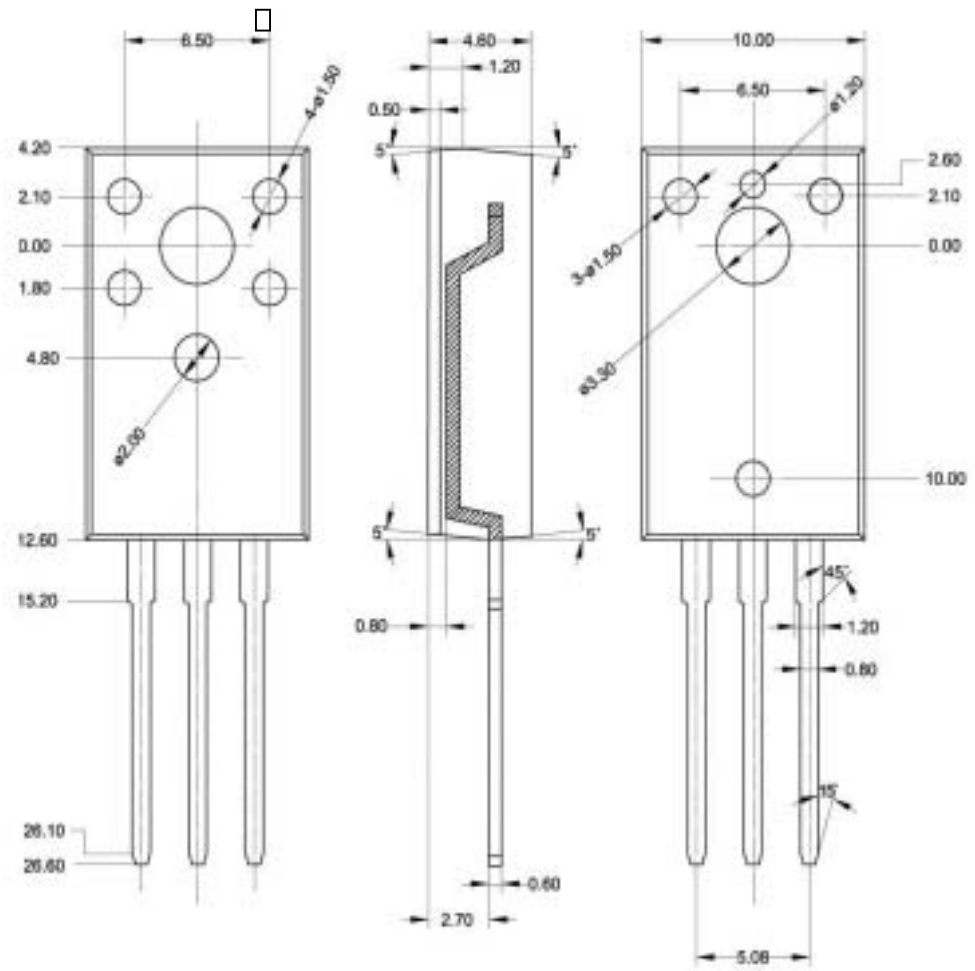


Fig.2 Outline dimensions (unindicated tolerance:±0.20 mm)