Silicon NPN Power Transistors 2SC4980

DESCRIPTION

·With ITO-220 package
·Switching power transistor
·Low collector saturation voltage

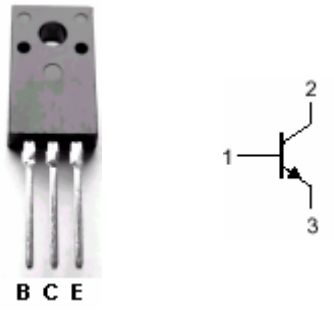


Fig.1 simplified outline (ITO-220) and symbol

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	100	V
V_{CEO}	Collector-emitter voltage	Open base	80	V
V_{EBO}	Emitter-base voltage	Open collector	7	V
I_C	Collector current		5	A
I_{CM}	Collector current-Peak		10	A
I_B	Base current		1.5	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 case	5.0	□/W

CHARACTERISTICS

Tj=25□ unless otherwise specified

SYMBOL	PARAMETER	CONDITIONS	MIN	TYP.	MAX	UNIT
$V_{CEO(SUS)}$	Collector-emitter sustaining voltage	I_C=50mA ;I_B=0	80			V
V_{CEsat}	Collector-emitter saturation voltage	I_C=2.5A; I_B=0.13A			0.3	V
V_{BEsat}	Base-emitter saturation voltage	I_C=2.5A; I_B=0.13A			1.2	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}	DC current gain	I_C=2.5A ; V_{CE}=2V	70			
f_T	Transition frequency	I_C=0.5A ; V_{CE}=10V		50		MHz

Switching times

t_{on}	Turn-on time	I_C=2.5A;I_{B1}=0.25A I_{B2}=0.25A ,R_L=12Ω V_{BB2}=4V			0.3	μs
t_s	Storage time				1.5	μs
t_f	Fall time				0.2	μs

PACKAGE OUTLINE

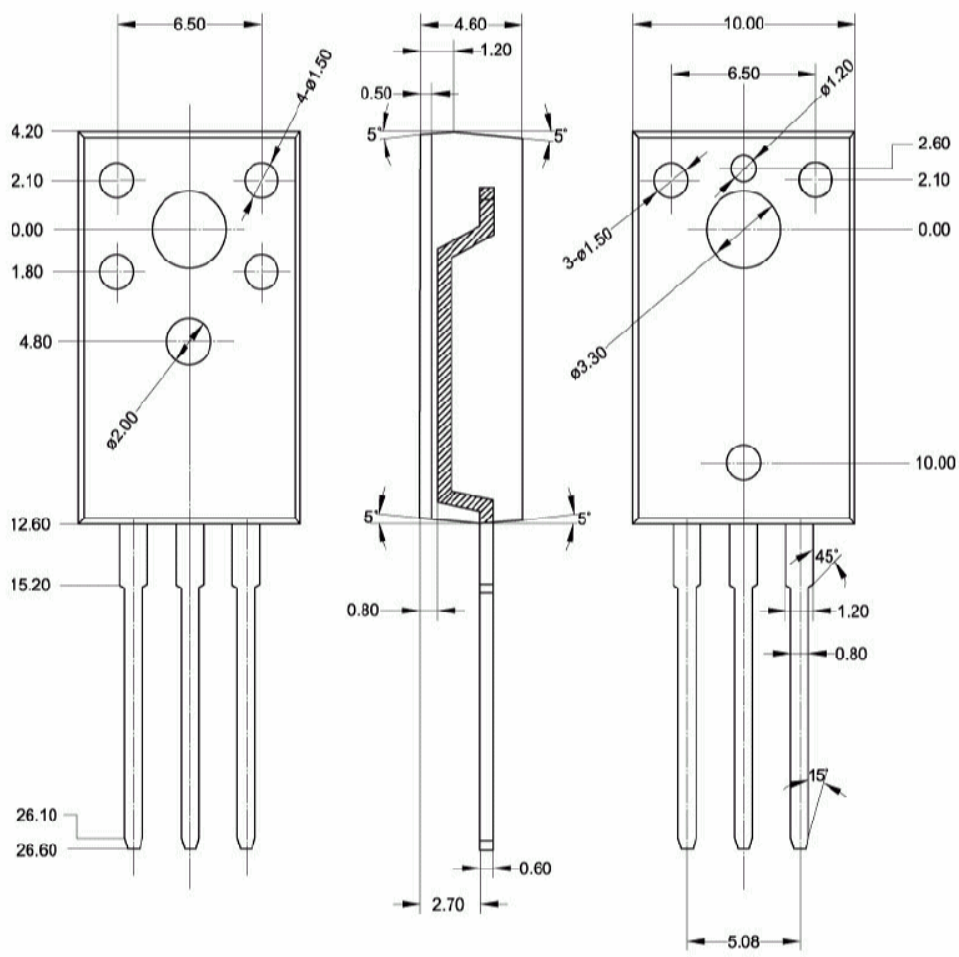


Fig.2 Outline dimensions (unindicated tolerance:±0.20 mm)