Silicon NPN Power Transistors 2N6098 2N6099 2N6100 2N6101

DESCRIPTION

·With TO-220 package
·High current capability

APPLICATIONS

·For use in general-purpose amplifier and switching applications

PINNING

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

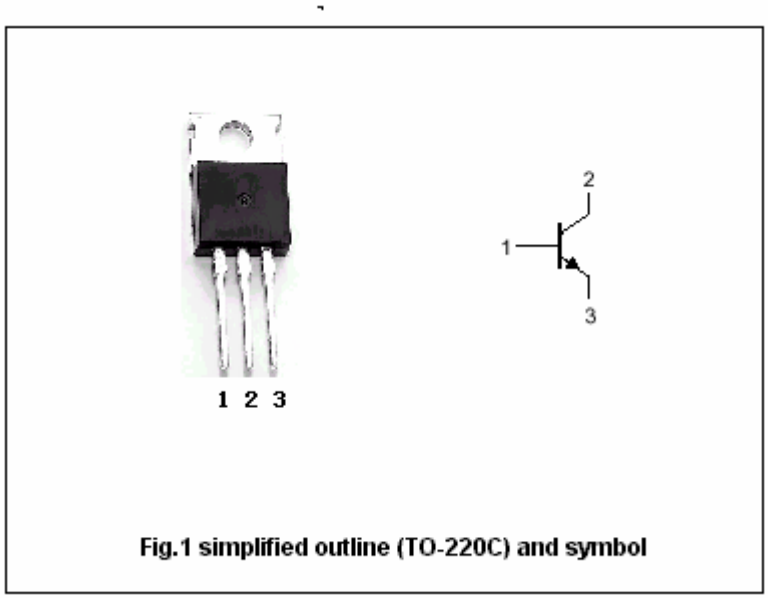

Fig.1 simplified outline (TO-220C) and symbol

Absolute maximum ratings(Ta=25□)

SYMBOL	PARAMETER		CONDITIONS	VALUE	UNIT
V_{CBO}	Collector-base voltage	2N6098	Open emitter	70	V
		2N6099		70	
		2N6100		80	
		2N6101		80	
V_{CEO}	Collector-emitter voltage	2N6098	Open base	70	V
		2N6099		70	
		2N6100		80	
		2N6101		80	
V_{EBO}	Emitter-base voltage		Open collector	8	V
I_C	Collector current			10	A
P_T	Total power dissipation		T_C=25□	75	W
T_j	Junction temperature			150	□
T_{stg}	Storage temperature			-65~150	□

THERMAL CHARACTERISTICS

SYMBOL	PARAMETER	MAX	UNIT
$R_{th\ j\text{-}c}$	Thermal resistance from junction to case	1.67	□/W

CHARACTERISTICS

Tj=25□ unless otherwise specified

SYMBOL	PARAMETER		CONDITIONS	MIN	TYP.	MAX	UNIT
$V_{CEO(SUS)}$	Collector-emitter sustaining voltage	2N6098	I_C=0.1A ;I_B=0	70			V
		2N6099		70			
		2N6100		80			
		2N6101		80			
$V_{CEsat-1}$	Collector-emitter saturation voltage		I_C=5A;I_B=0.5A			1.3	V
$V_{CEsat-2}$	Collector-emitter saturation voltage		I_C=10A;I_B=2.5A			3.5	V
V_{BE}	Base-emitter on voltage	2N6098/6099	I_C=4A ; V_{CE}=4V			1.3	V
		2N6100/6101	I_C=5A ; V_{CE}=4V				
I_{CBO}	Collector cut-off current		V_{CB}=Rated V_{CBO};I_E=0 T_C=150□			0.5 2.0	mA
I_{EBO}	Emitter cut-off current		V_{EB}=8V; I_C=0			1.0	mA
h_{FE}	DC current gain	2N6098/6099	I_C=4A ; V_{CE}=4V	20		80	
		2N6100/6101	I_C=5A ; V_{CE}=4V				
f_T	Transition frequency		I_C=1A ; V_{CE}=10V	0.8			MHz

PACKAGE OUTLINE

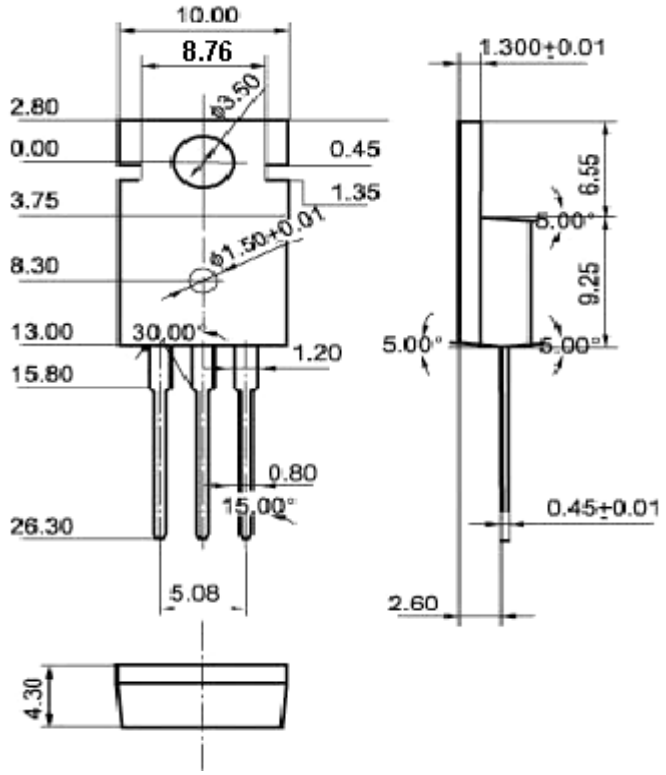

Fig.2 Outline dimensions(unindicated tolerance:±0.10 mm)