

Silicon NPN Power Transistors

2N6497

DESCRIPTION

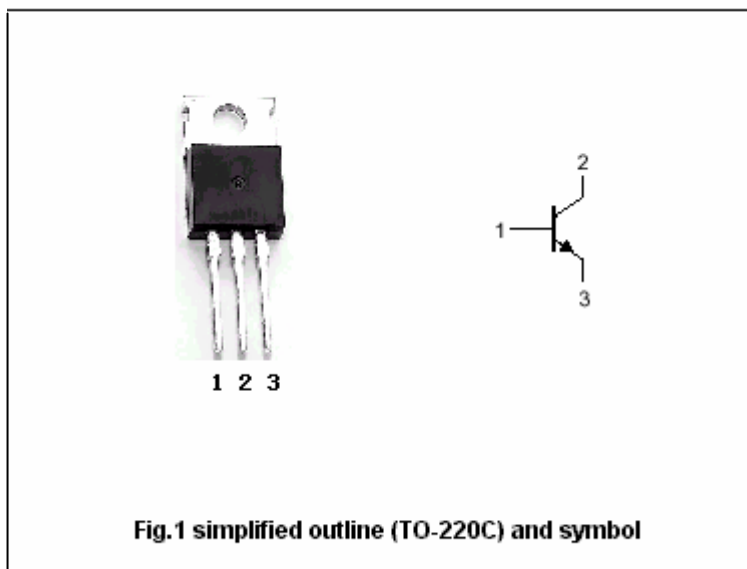
- With TO-220C package
- High breakdown voltage

APPLICATIONS

- Designed for high voltage inverters, switching regulators and line operated amplifier 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	350	V
V_{CEO}	Collector-emitter voltage	Open base	250	V
V_{EBO}	Emitter-base voltage	Open collector	6	V
I_C	Collector current (DC)		5	A
I_{CM}	Collector current-Peak		10	A
I_B	Base current		2	A
P_D	Total power dissipation	$T_C=25^\circ\text{C}$	80	W
T_j	Junction temperature		150	$^\circ\text{C}$
T_{stg}	Storage temperature		-65~150	$^\circ\text{C}$

THERMAL CHARACTERISTICS

SYMBOL	PARAMETER	VALUE	UNIT
$R_{th\ j-c}$	Thermal resistance from junction to case	1.56	$^\circ\text{C}/\text{W}$

Silicon NPN Power Transistors

2N6497

CHARACTERISTICS

T_j=25°C unless otherwise specified

SYMBOL	PARAMETER	CONDITIONS	MIN	TYP.	MAX	UNIT
V _{CEO(SUS)}	Collector-emitter sustaining voltage	I _C =25mA ; I _B =0	250			V
V _{CEsat-1}	Collector-emitter saturation voltage	I _C =2.5A; I _B =0.5A			1.0	V
V _{CEsat-2}	Collector-emitter saturation voltage	I _C =5A ; I _B =2A			5.0	V
V _{BEsat-1}	Base-emitter saturation voltage	I _C =2.5A; I _B =0.5A			1.5	V
V _{BEsat-2}	Base-emitter saturation voltage	I _C =5A ; I _B =2A			2.5	V
I _{CEX}	Collector cut-off current	V _{CE} =250V; V _{BE} =-1.5V V _{CE} =175V; V _{BE} =-1.5V; T _C =100°C			1.0 10	mA
I _{EBO}	Emitter cut-off current	V _{EB} =6V; I _C =0			1.0	mA
h _{FE-1}	DC current gain	I _C =2.5A ; V _{CE} =10V	10		75	
h _{FE-2}	DC current gain	I _C =5A ; V _{CE} =10V	3			
f _T	Transition frequency	I _C =250mA ; V _{CE} =10V; f=1MHz	5.0			

Switching times

t _r	Rise time	I _C =2.5A, I _{B1} =-I _{B2} =0.5A V _{CC} =125V			1.0	μs
t _{stg}	Storage time				2.5	μs
t _f	Fall time				1.0	μs

Silicon NPN Power Transistors

2N6497

PACKAGE OUTLINE

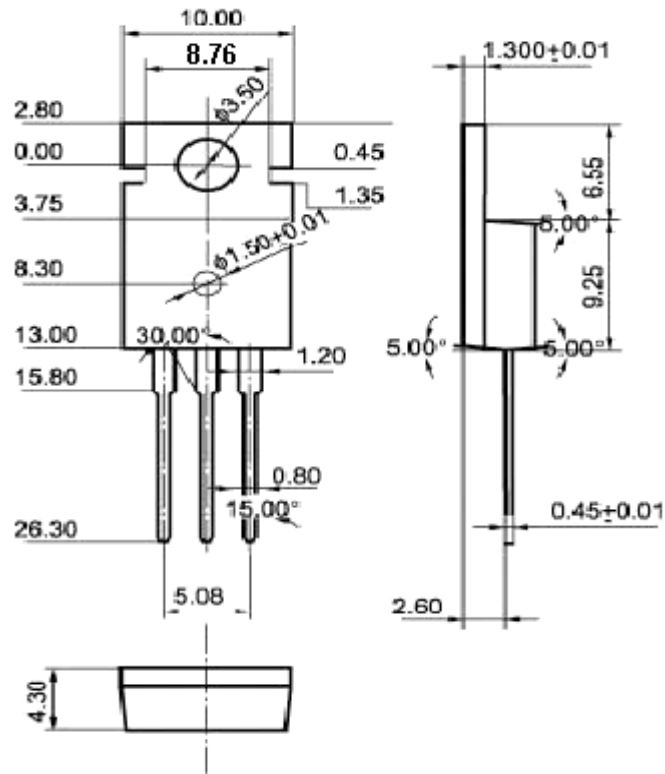


Fig.2 Outline dimensions (unindicated tolerance:±0.10 mm)