

## Silicon NPN Power Transistors

## 2SC1505

## DESCRIPTION

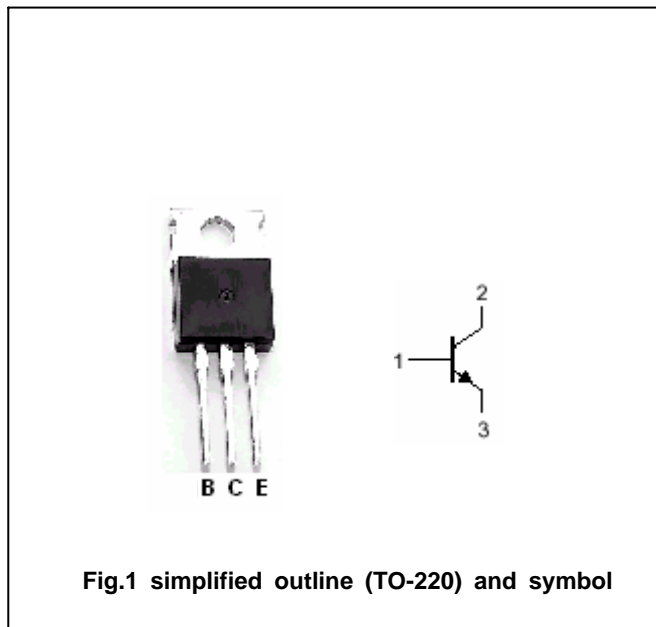
- With TO-220 package
- High collector-emitter voltage  
:  $V_{CEO}=300V$
- High frequency:  $f_T=40MHz(\text{Min})$

## APPLICATIONS

- For use in line-operated color TV chroma output circuits and sound output circuits.

## 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	300	V
$V_{CEO}$	Collector-emitter voltage	Open base	300	V
$V_{EBO}$	Emitter-base voltage	Open collector	7	V
$I_C$	Collector current		0.2	A
$P_T$	Collector power dissipation	$T_a=25$	1.2	W
		$T_C=25$	15	
$T_j$	Junction temperature		150	
$T_{stg}$	Storage temperature		-55~150	

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## CHARACTERISTICS

T<sub>j</sub>=25 unless otherwise specified

SYMBOL	PARAMETER	CONDITIONS	MIN	TYP.	MAX	UNIT
V <sub>(BR)CBO</sub>	Collector-base breakdown voltage	I <sub>C</sub> =10 μA ; I <sub>E</sub> =0	300			V
V <sub>(BR)CEO</sub>	Collector-emitter breakdown voltage	I <sub>C</sub> =1mA ; I <sub>B</sub> =0	300			V
V <sub>(BR)EBO</sub>	Emitter-base breakdown voltage	I <sub>E</sub> =10 μA ; I <sub>C</sub> =0	7			V
V <sub>CEsat</sub>	Collector-emitter saturation voltage	I <sub>C</sub> =50mA ; I <sub>B</sub> =5mA			2.0	V
I <sub>CBO</sub>	Collector cut-off current	V <sub>CB</sub> =200V ; I <sub>E</sub> =0			0.1	μA
I <sub>EBO</sub>	Emitter cut-off current	V <sub>EB</sub> =5V ; I <sub>C</sub> =0			0.1	μA
h <sub>FE</sub>	DC current gain	I <sub>C</sub> =10mA ; V <sub>CE</sub> =10V	40		200	
C <sub>OB</sub>	Output capacitance	I <sub>E</sub> =0 ; V <sub>CB</sub> =50V ; f=1MHz			4.5	pF
f <sub>T</sub>	Transition frequency	I <sub>C</sub> =10mA ; V <sub>CE</sub> =30V	50	80		MHz

◆ h<sub>FE</sub> classifications

M	L	K
40-80	60-120	100-200

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PACKAGE OUTLINE

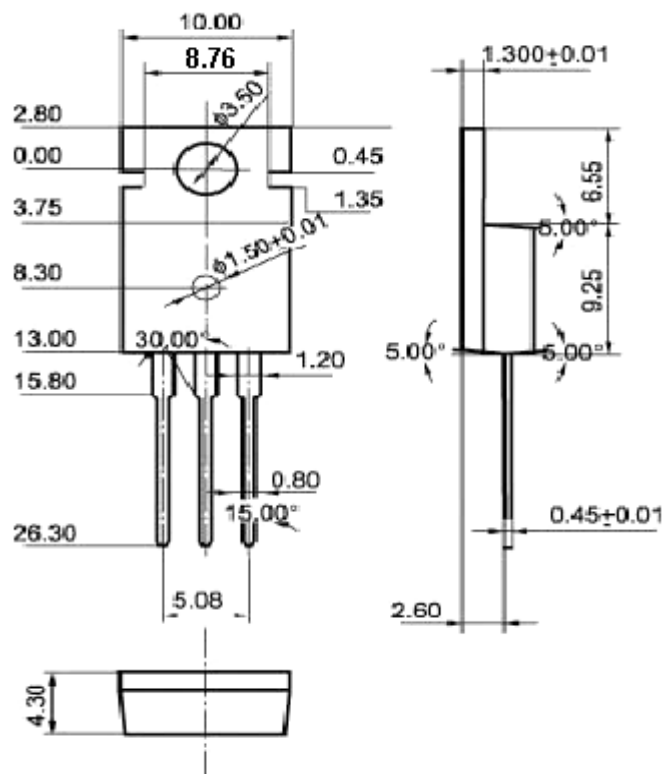


Fig.2 outline dimensions (unindicated tolerance:  $\pm 0.10$  mm)