

Silicon NPN Power Transistors

2SC2085

DESCRIPTION

- With TO-220 package
- High breakdown voltage
- High transition frequency

APPLICATIONS

- For line-operated AF amplifier and chrominance output applications

PINNING

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

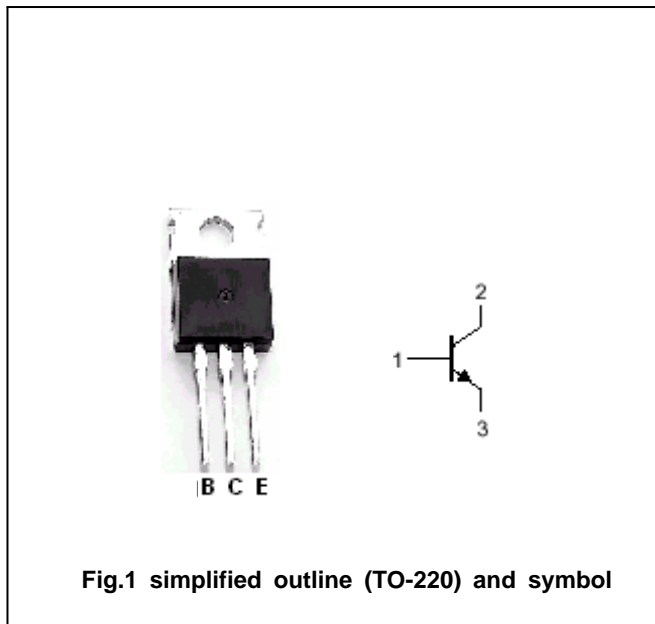


Fig.1 simplified outline (TO-220) and symbol

Absolute maximum ratings (Ta=25°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	5	V
I_C	Collector current		0.1	A
I_{CM}	Collector current-peak		0.15	A
P_C	Collector power dissipation	$T_C=25^{\circ}C$	10	W
T_j	Junction temperature		150	°C
T_{stg}	Storage temperature		-55~150	°C

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CHARACTERISTICS

T_j=25°C unless otherwise specified

SYMBOL	PARAMETER	CONDITIONS	MIN	TYP.	MAX	UNIT
V _{(BR)CBO}	Collector-base breakdown voltage	I _C =100 μ A ; I _E =0	300			V
V _{(BR)CEO}	Collector-emitter breakdown voltage	I _C =1mA ; I _B =0	300			V
V _{(BR)EBO}	Emitter-base breakdown voltage	I _E =100 μ A ; I _C =0	5			V
V _{CEsat}	Collector-emitter saturation voltage	I _C =100mA ; I _B =10mA			5.0	V
V _{BE}	Base-emitter on voltage	I _C =50mA ; V _{CE} =10V			1.2	V
I _{CEO}	Collector cut-off current	V _{CE} =300V; I _B =0			20	μ A
I _{CBO}	Collector cut-off current	V _{CB} =300V; I _E =0			10	μ A
I _{EBO}	Emitter cut-off current	V _{EB} =5V; I _C =0			10	μ A
h _{FE-1}	DC current gain	I _C =10mA ; V _{CE} =10V	30			
h _{FE-2}	DC current gain	I _C =50mA ; V _{CE} =10V	30		150	
C _{OB}	Output capacitance	I _E =0; V _{CB} =30V; f=1MHz		8		pF
f _T	Transition frequency	I _C =20mA ; V _{CE} =30V		55		MHz

◆ h_{FE-2} classifications

P	Q	R
30-60	50-100	80-150

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PACKAGE OUTLINE

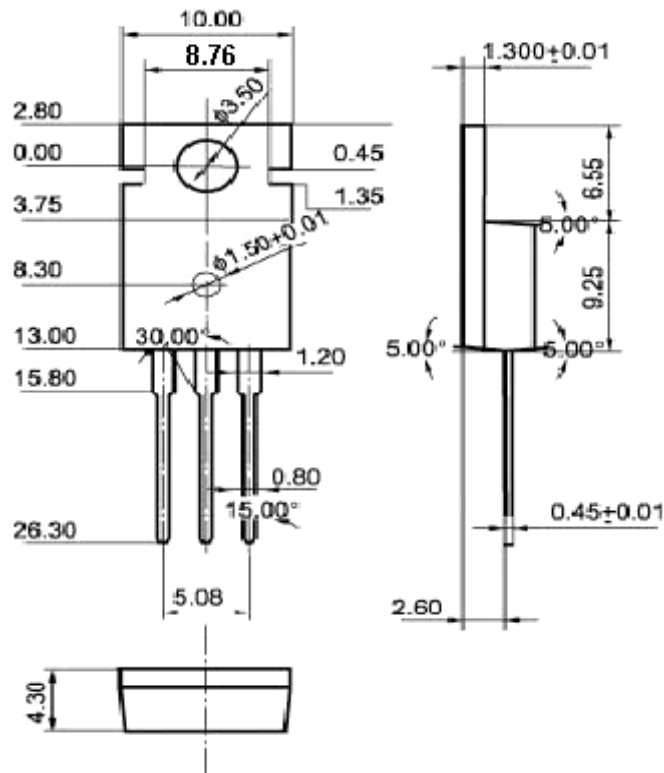


Fig.2 outline dimensions (unindicated tolerance: ± 0.10 mm)