

Silicon NPN Power Transistors

2SD525

DESCRIPTION

- With TO-220C package
- Complement to type 2SB595
- High breakdown voltage : $V_{CEO}=100V$
- Low collector saturation voltage
: $V_{CE(sat)}=2.0V(Max)$

APPLICATIONS

- Power amplifier applications
- Recommend for 30W high fidelity audio frequency amplifier output stage

PINNING

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

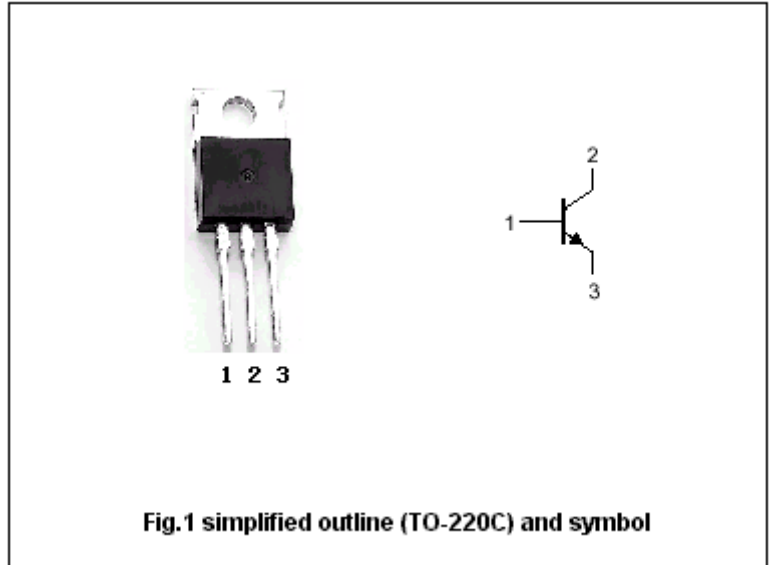


Fig.1 simplified outline (TO-220C) and symbol

Absolute maximum ratings($T_c=25$)

SYMBOL	PARAMETER	CONDITIONS	VALUE	UNIT
V_{CBO}	Collector-base voltage	Open emitter	100	V
V_{CEO}	Collector-emitter voltage	Open base	100	V
V_{EBO}	Emitter-base voltage	Open collector	5	V
I_C	Collector current		5	A
I_E	Emitter current		5	A
I_B	Base current		0.5	A
P_C	Collector power dissipation	$T_c=25$	40	W
T_j	Junction temperature		150	
T_{stg}	Storage temperature		-55-150	

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CHARACTERISTICS

T_j=25 unless otherwise specified

SYMBOL	PARAMETER	CONDITIONS	MIN	TYP.	MAX	UNIT
V _{CEO}	Collector-emitter breakdown voltage	I _C =50mA; I _B =0	100			V
V _{EBO}	Emitter-base breakdown voltage	I _E =10mA; I _C =0	5			V
V _{CEsat}	Collector-emitter saturation voltage	I _C =4A; I _B =0.4 A			2.0	V
V _{BE}	Emitter-base voltage	I _C =1A; V _{CE} =5V			1.5	V
I _{CBO}	Collector cut-off current	V _{CB} =100V I _E =0			100	μ A
I _{EBO}	Emitter cut-off current	V _{EB} =5V; I _C =0			1	mA
h _{FE-1}	DC current gain	I _C =1A; V _{CE} =5V	40		240	
h _{FE-2}	DC current gain	I _C =4A; V _{CE} =5V	20			
f _T	Transition frequency	I _C =1A; V _{CE} =5V		12		MHz
C _{OB}	Output capacitance	I _E =0; V _{CB} =10V; f=1MHz		100		pF

◆ h_{FE-1} classifications

R	O	Y
40-80	70-140	120-240

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PACKAGE OUTLINE

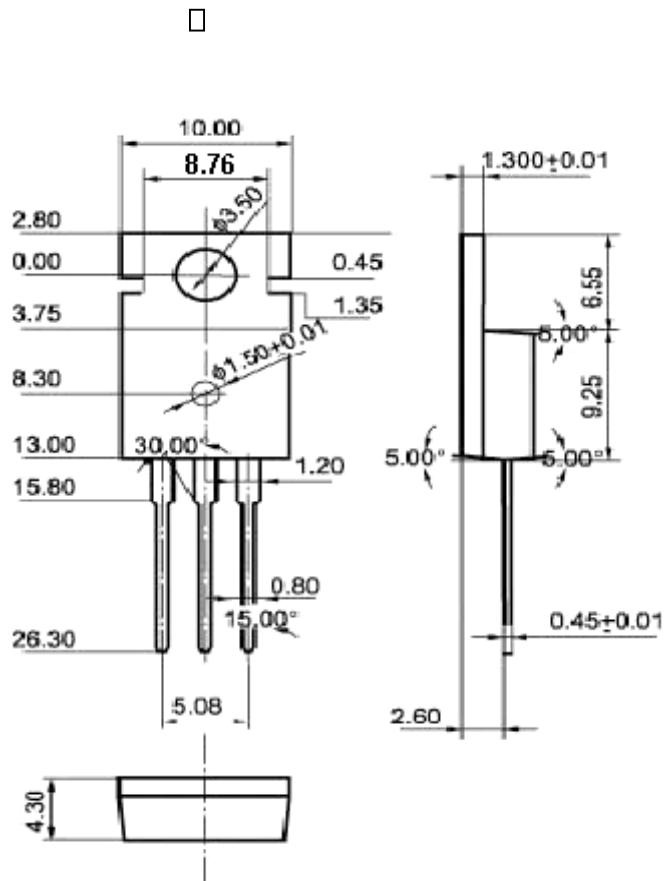


Fig.2 Outline dimensions (unindicated tolerance: ± 0.10 mm)