

Silicon NPN Power Transistors

2SD633 2SD635

DESCRIPTION

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- With TO-220C package
- Complement to type 2SB673/675
- DARLINGTON
- High DC current gain
- Low saturation voltage

APPLICATIONS

- High power switching
- Hammer drive,pulse motor drive

PINNING

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

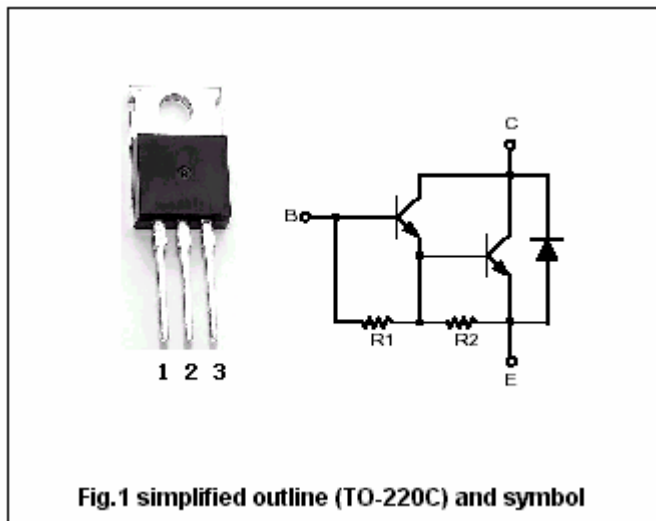


Fig.1 simplified outline (TO-220C) and symbol

Absolute maximum ratings(Ta=25°C)

SYMBOL	PARAMETER	CONDITIONS	VALUE	UNIT
V _{CBO}	Collector-base voltage	2SD633	100	V
		2SD635	60	
V _{CEO}	Collector-emitter voltage	2SD633	100	V
		2SD635	60	
V _{EBO}	Emitter-base voltage	Open collector	5	V
I _C	Collector current		7	A
I _B	Base current		0.7	A
P _C	Collector dissipation	T _C =25°C	40	W
T _j	Junction temperature		150	°C
T _{stg}	Storage temperature		-50~150	°C

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CHARACTERISTICS

T_j=25°C unless otherwise specified

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SYMBOL	PARAMETER	CONDITIONS	MIN	TYP.	MAX	UNIT	
V _{(BR)CEO}	Collector-emitter breakdown voltage	2SD633	I _C =50mA; I _B =0	100			V
		2SD635		60			
V _{CEsat-1}	Collector-emitter saturation voltage	I _C =3A; I _B =6mA			1.5	V	
V _{CEsat-2}	Collector-emitter saturation voltage	I _C =7A; I _B =14mA			2.0	V	
V _{BEsat}	Base-emitter saturation voltage	I _C =3A; I _B =6mA			2.5	V	
I _{CBO}	Collector cut-off current	2SD633	V _{CB} =100V; I _E =0		100	μA	
		2SD635	V _{CB} =60V; I _E =0				
I _{EBO}	Emitter cut-off current	V _{EB} =5V; I _C =0			3.0	mA	
h _{FE-1}	DC current gain	I _C =3A; V _{CE} =3V	2000		15000		
h _{FE-2}	DC current gain	I _C =7A; V _{CE} =3V	1000				

Switching times

t _{on}	Turn-on time	I _{B1} =-I _{B2} =6mA V _{CC} =45V; R _L =15Ω		0.8		μs
t _s	Storage time			3.0		μs
t _f	Fall time			2.5		μs

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PACKAGE OUTLINE

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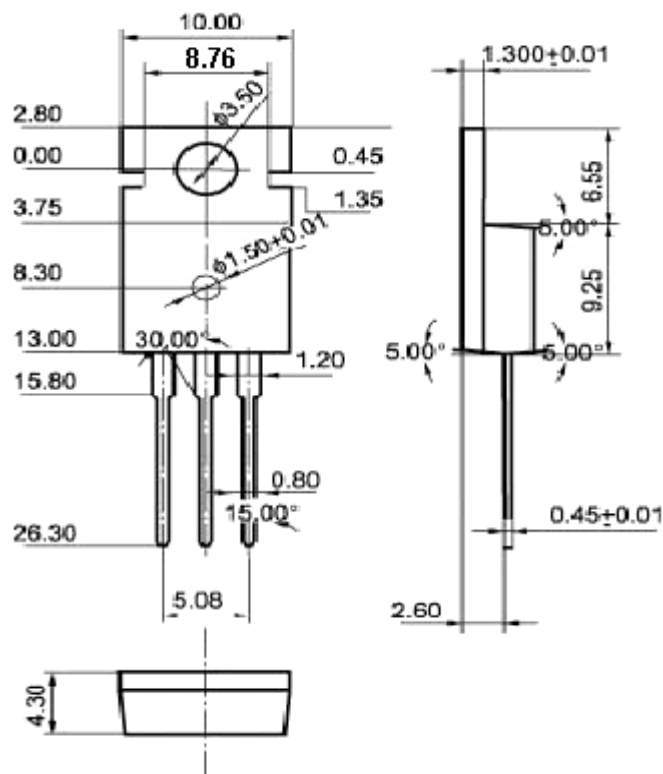


Fig.2 Outline dimensions (unindicated tolerance:±0.10mm)