

Silicon NPN Power Transistors

2SD743 2SD743A

DESCRIPTION

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- With TO-220C package
- Complement to type 2SB703/703A

APPLICATIONS

- Designed for use in audio frequency power amplifier ,low speed switching applications

PINNING

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

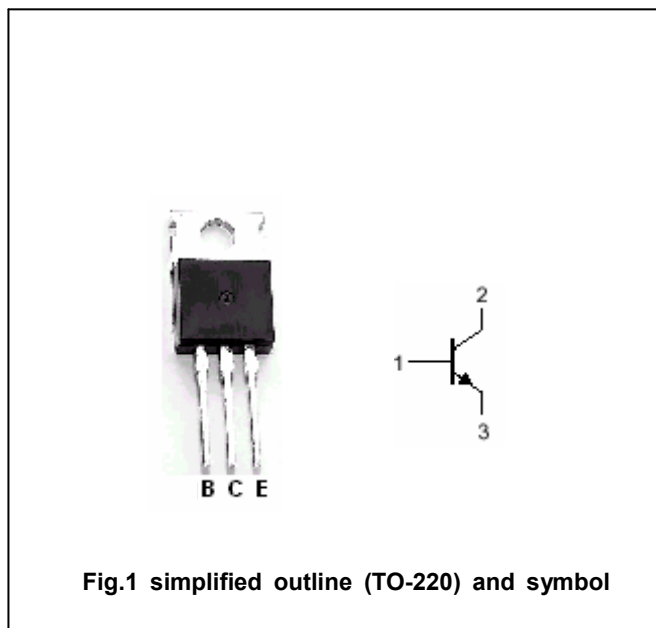


Fig.1 simplified outline (TO-220) and symbol

Maximum absolute ratings(Ta=25°C)

SYMBOL	PARAMETER	CONDITIONS	VALUE	UNIT
V _{CBO}	Collector-base voltage	Open emitter	100	V
V _{CEO}	Collector-emitter voltage	2SD743	80	V
		2SD743A	100	
V _{EBO}	Emitter-base voltage	Open collector	5	V
I _C	Collector current		4	A
I _{CM}	Collector current-Peak		6	A
I _B	Base current		1	A
P _C	Collector power dissipation	T _C =25°C	40	W
T _j	Junction temperature		150	°C
T _{stg}	Storage temperature		-50~150	°C

THERMAL CHARACTERISTICS

SYMBOL	CHARACTERISTICS	MAX	UNIT
Rθ _{jc}	Thermal resistance junction to case	3.125	°C/W

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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	2SD743	I _C =10mA; I _B =0	80		V
		2SD743A		100		
V _{(BR)CBO}	Collector-base breakdown voltage	I _C =1.0mA; I _E =0	100			V
V _{(BR)EBO}	Emitter-base breakdown voltage	I _E =1.0mA; I _C =0	5			V
V _{CEsat}	Collector-emitter saturation voltage	I _C =3A; I _B =0.3A			2.0	V
V _{BEsat}	Base-emitter saturation voltage	I _C =3A; I _B =0.3A			2.0	V
I _{CBO}	Collector cut-off current	V _{CB} =80V; I _E =0			10	μA
I _{EBO}	Emitter cut-off current	V _{EB} =3V; I _C =0			10	μA
h _{FE-1}	DC current gain	I _C =20mA; V _{CE} =5V	20			
h _{FE-2}	DC current gain	I _C =0.5A; V _{CE} =5V	40		200	
f _T	Transition frequency	I _C =0.1A; V _{CE} =5V; f=1.0MHz	10			MHz

◆ h_{FE-2} Classifications

S	R	Q
40-80	60-120	100-200

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PACKAGE OUTLINE

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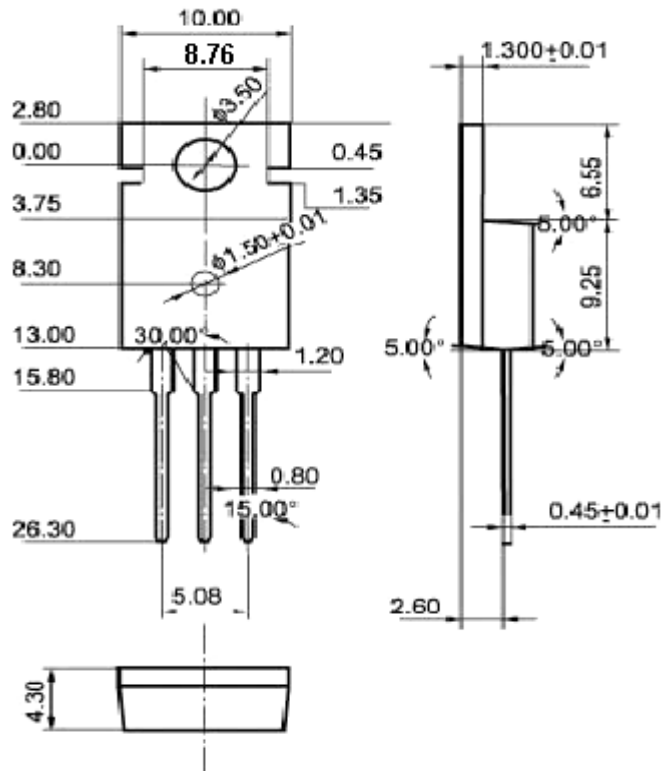


Fig.2 Outline dimensions (unindicated tolerance:±0.10mm)