

Silicon NPN Power Transistors

2SD745/745A/745B

DESCRIPTION

- With MT-200 package
- Complement to type 2SB705/705A/705B

APPLICATIONS

- Audio frequency power amplifier
- Suitable for output stages of 60~120W audio amplifiers and voltage regulators

PINNING(see Fig.2)

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

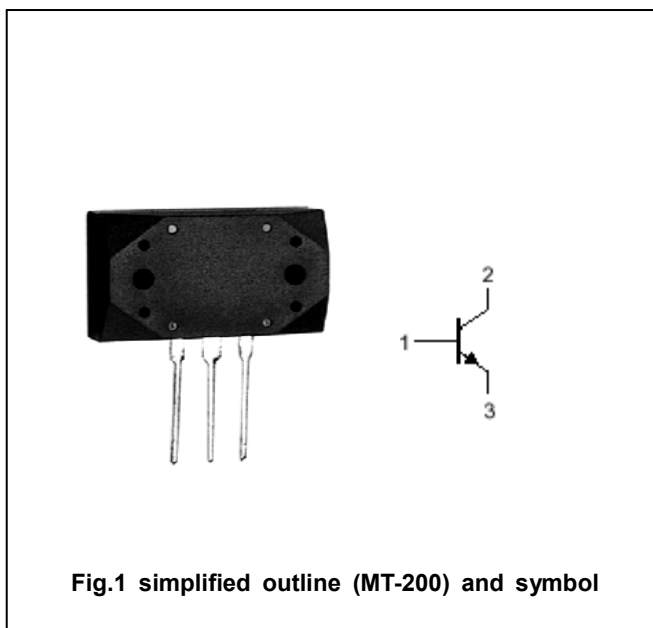


Fig.1 simplified outline (MT-200) and symbol

Absolute maximum ratings (Ta=25°C)

SYMBOL	PARAMETER	CONDITIONS	VALUE	UNIT
V _{CBO}	Collector-base voltage	2SD745	140	V
		2SD745A	150	
		2SD745B	160	
V _{CEO}	Collector-emitter voltage	2SD745	140	V
		2SD745A	150	
		2SD745B	160	
V _{EBO}	Emitter-base voltage	Open collector	5	V
I _C	Collector current		10	A
I _{CM}	Collector current-peak		15	A
P _T	Total power dissipation	T _C =25°C	120	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

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SYMBOL	PARAMETER	CONDITIONS	MIN	TYP.	MAX	UNIT
V _{(BR)CEO}	Collector-emitter breakdown voltage	2SD745	140			V
		2SD745A	150			
		2SD745B	160			
V _{CEsat}	Collector-emitter saturation voltage	I _C =5A; I _B =0.5 A			1.5	V
V _{BEsat}	Base-emitter saturation voltage	I _C =5A; I _B =0.5 A			2.0	V
I _{CBO}	Collector cut-off current	V _{CB} =140V; I _E =0			50	μA
I _{EBO}	Emitter cut-off current	V _{EB} =3V; I _C =0			50	μA
h _{FE-1}	DC current gain	I _C =50mA; V _{CE} =5V	20			
h _{FE-2}	DC current gain	I _C =2A; V _{CE} =5V	40		200	
f _T	Transition frequency	I _C =0.2A; V _{CE} =5V		15		MHz
C _{OB}	Output capacitance	I _E =0; V _{CB} =10V; f=1MHz		270		pF

◆ h_{FE-2} classifications

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

PACKAGE OUTLINE

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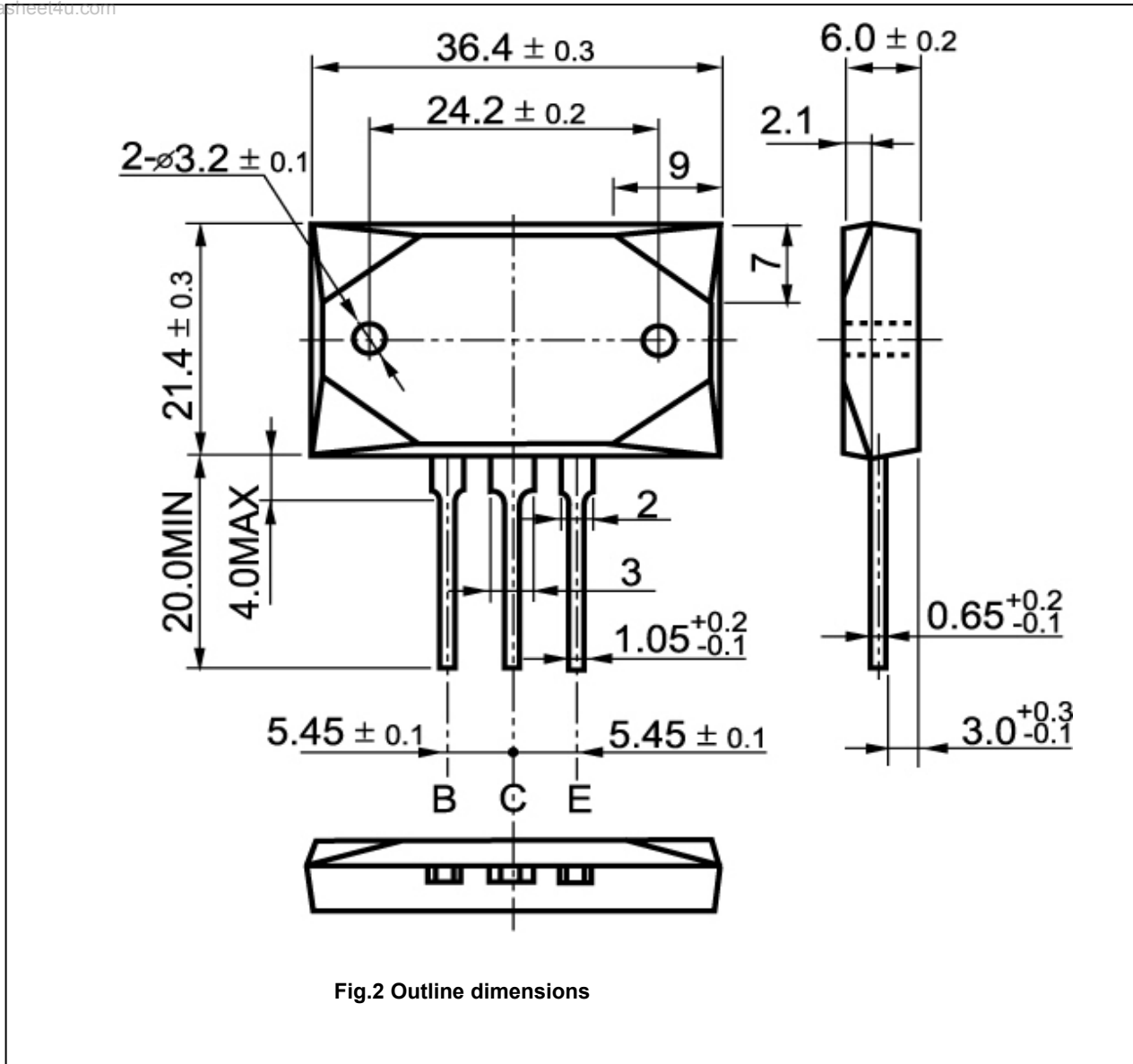


Fig.2 Outline dimensions