Silicon NPN Power Transistors 2SC2525

DESCRIPTION

·With MT-200 package
·Complement to type 2SA1075
·Excellent safe operating area
·Ultra fast switching speed

APPLICATIONS

·Suited for high frequency power amplifiers, audio power amplifiers,switching regulators and DC-DC converters applications

PINNING(see Fig.2)

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

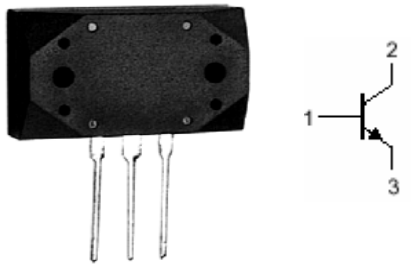

Fig.1 simplified outline (MT-200) and symbol

Absolute maximum ratings(Ta=25□)

SYMBOL	PARAMETER	CONDITIONS	VALUE	UNIT
V_{CBO}	Collector-base voltage	Open emitter	120	V
V_{CEO}	Collector-emitter voltage	Open base	120	V
V_{EBO}	Emitter-base voltage	Open collector	7	V
I_C	Collector current		12	A
P_C	Collector power dissipation	T_C=25□	120	W
T_j	Junction temperature		150	□
T_{stg}	Storage temperature		-65~150	□

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CHARACTERISTICS

Tj=25□ unless otherwise specified

SYMBOL	PARAMETER	CONDITIONS	MIN	TYP.	MAX	UNIT
$V_{(BR)CEO}$	Collector-emitter breakdown voltage	I_C=1mA; R_{BE}=∞	120			V
$V_{(BR)CBO}$	Collector-base breakdown voltage	I_C=50μA; I_E=0	120			V
$V_{(BR)EBO}$	Emitter-base breakdown voltage	I_E=50μA; I_C=0	7			V
V_{CEsat}	Collector-emitter saturation voltage	I_C=5 A;I_B=0.5 A		0.7	1.8	V
V_{BE}	Base-emitter voltage	I_C=5A ; V_{CE}=5V		1.25	1.7	V
I_{CBO}	Collector cut-off current	V_{CB}=120V; I_E=0			50	μA
I_{EBO}	Emitter cut-off current	V_{EB}=7V; I_C=0			50	μA
h_{FE-1}	DC current gain	I_C=1A ; V_{CE}=5V	60		200	
h_{FE-2}	DC current gain	I_C=7A ; V_{CE}=5V	40			
f_T	Transition frequency	I_C=1A ; V_{CB}=10V,f=1MHz	50	80		MHz
C_{OB}	Output capacitance	I_E=0; V_{CB}=10V;f=1MHz		180	300	pF
Switching times						
t_r	Rise time	I_C=7.5A; R_L=4Ω I_{B1}=-I_{B2}=0.75A		0.3		μs
t_s	Storage time			1.3		μs
t_f	Fall time			0.2		μs

PACKAGE OUTLINE

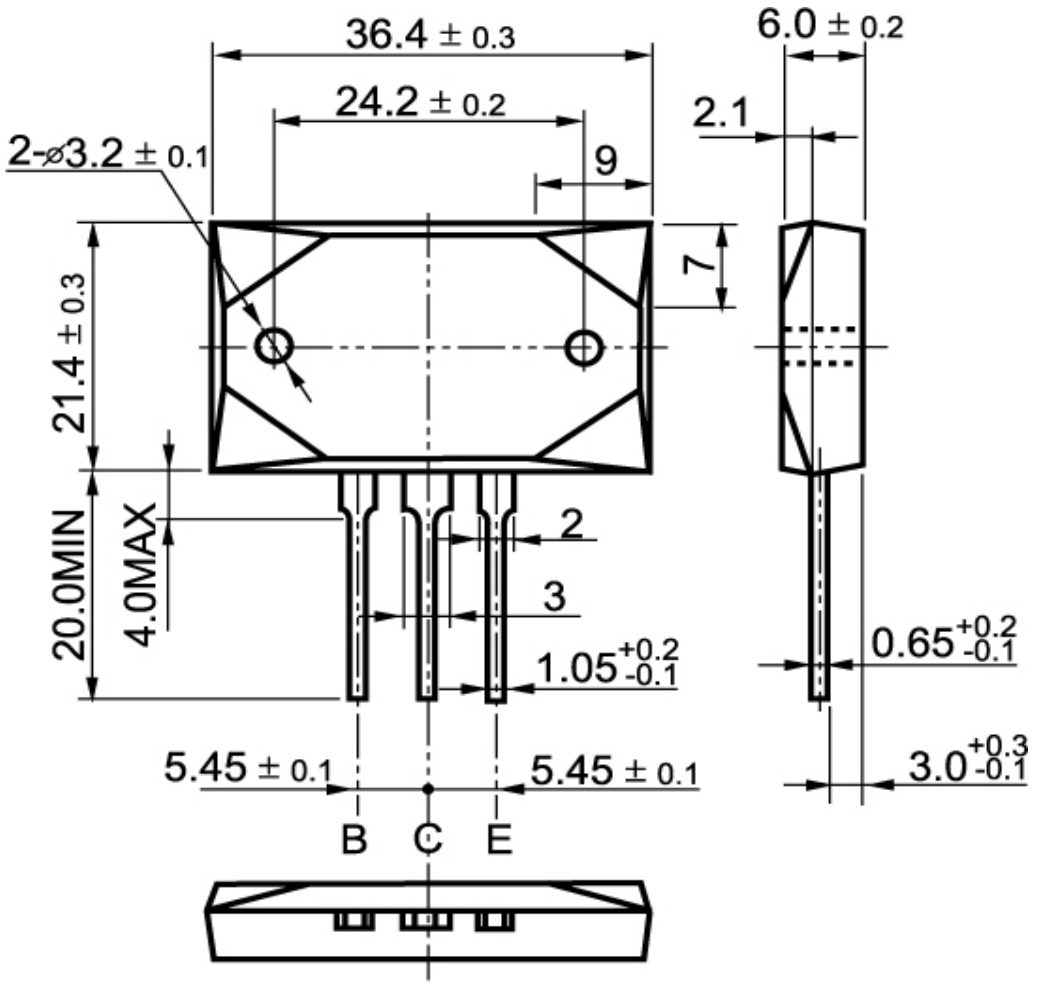

Fig.2 Outline dimensions