



# PNP Silicon Epitaxial Planar Transistor

# B772

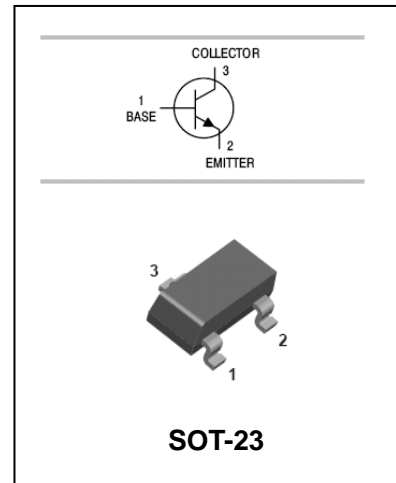
## FEATURES

- Low Speed Switching
- Complement to D882



## APPLICATIONS

- AUDIO frequency general purpose amplifier application



## ORDERING INFORMATION

Type No.	Marking	Package Code
B772	B772	SOT-23

## MAXIMUM RATING @ Ta=25°C unless otherwise specified

Symbol	Parameter	Value	Units
V <sub>CBO</sub>	Collector-Base Voltage	-40	V
V <sub>CEO</sub>	Collector-Emitter Voltage	-30	V
V <sub>EBO</sub>	Emitter-Base Voltage	-5	V
I <sub>C</sub>	Collector Current -Continuous	-3	A
P <sub>C</sub>	Collector Dissipation (T <sub>C</sub> =25°C)	10	W
	Collector Dissipation (T <sub>a</sub> =25°C)	1	
T <sub>j</sub> , T <sub>stg</sub>	Junction and Storage Temperature	-55 to +150	°C



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**B772**

ELECTRICAL CHARACTERISTICS @ Ta=25°C unless otherwise specified

Parameter	Symbol	Test conditions	MIN	TYP	MAX	UNIT
Collector-base breakdown voltage	$V_{(BR)CBO}$	$I_C = -100\mu A, I_E = 0$	-40			V
Collector-emitter breakdown voltage	$V_{(BR)CEO}$	$I_C = -10mA, I_B = 0$	-30			V
Emitter-base breakdown voltage	$V_{(BR)EBO}$	$I_E = -100\mu A, I_C = 0$	-5			V
Collector cut-off current	$I_{CBO}$	$V_{CB} = -30V, I_E = 0$			-1	$\mu A$
Emitter cut-off current	$I_{EBO}$	$V_{EB} = -3V, I_C = 0$			-1	$\mu A$
DC current gain	$h_{FE}$	$V_{CE} = -2V, I_C = -1A$	60	160	400	
		$V_{CE} = -2V, I_C = -20mA$	30	220		
Collector-emitter saturation voltage	$V_{CE(sat)}$	$I_C = -2A, I_B = -0.2A$		-0.3	-0.5	V
Base-emitter saturation voltage	$V_{BE(sat)}$	$I_C = -2A, I_B = -0.2A$		-1.0	-2.0	V
Transition frequency	$f_T$	$V_{CE} = -5V, I_C = -0.1A$		80		MHz
Output Capacitance	$C_{ob}$	$V_{CE} = -10V, I_E = 0,$ $f = 1MHz$		55		pF

CLASSIFICATION OF  $h_{FE(1)}$

Rank	R	O	Y	GR
Range	60-120	100-200	160-320	200-400

TYPICAL CHARACTERISTICS @ Ta=25°C unless otherwise specified

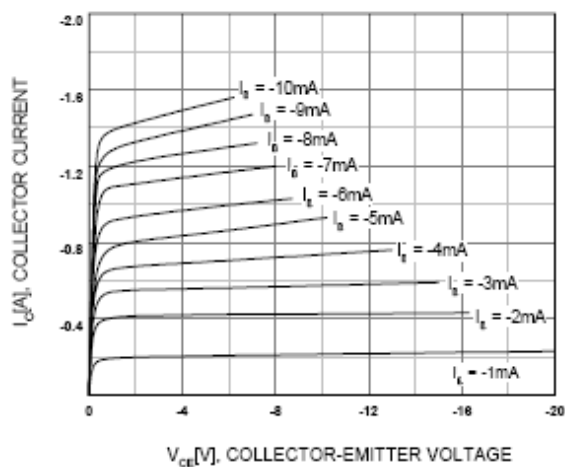


Figure 1. Static Characteristic

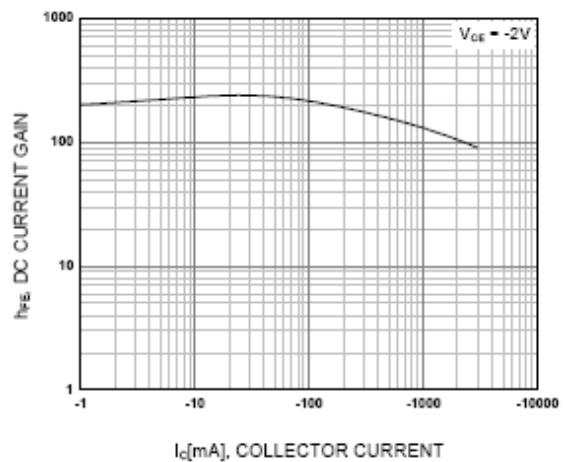


Figure 2. DC current Gain

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B772

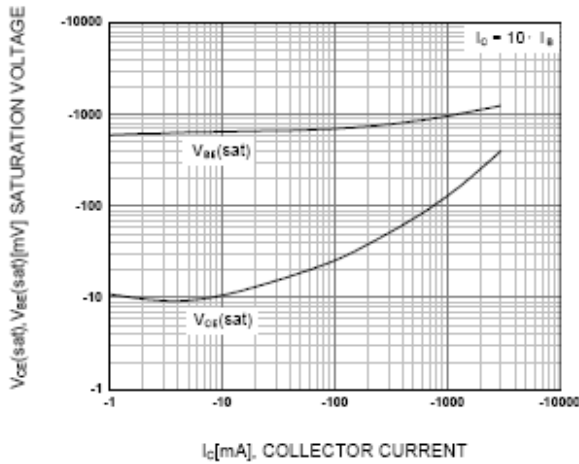


Figure 3. Base-Emitter Saturation Voltage  
Collector-Emitter Saturation Voltage

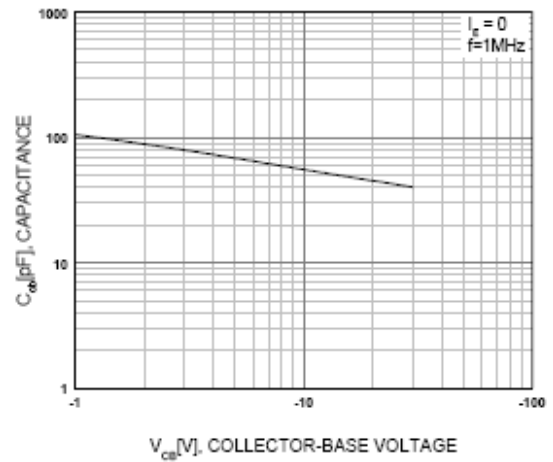


Figure 4. Collector Output Capacitance

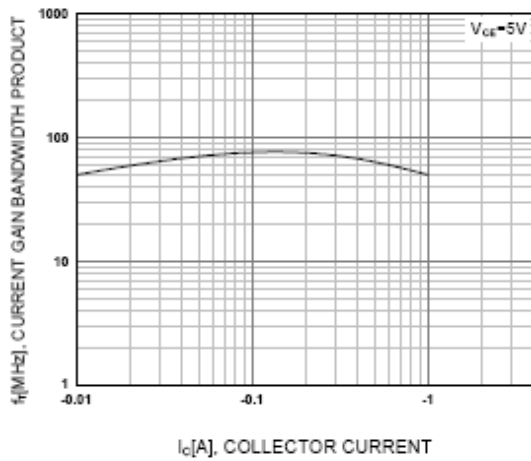


Figure 5. Current Gain Bandwidth Product

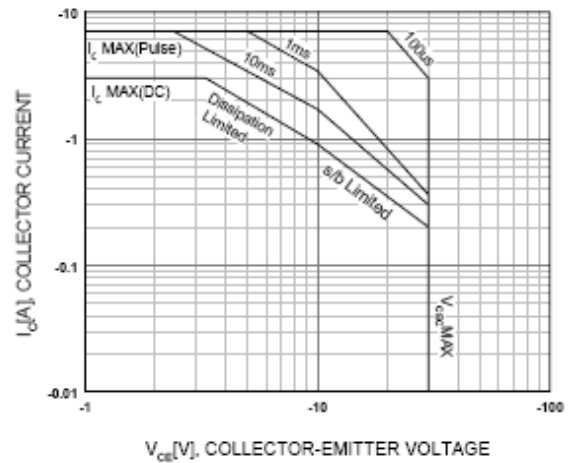


Figure 6. Safe Operating Area

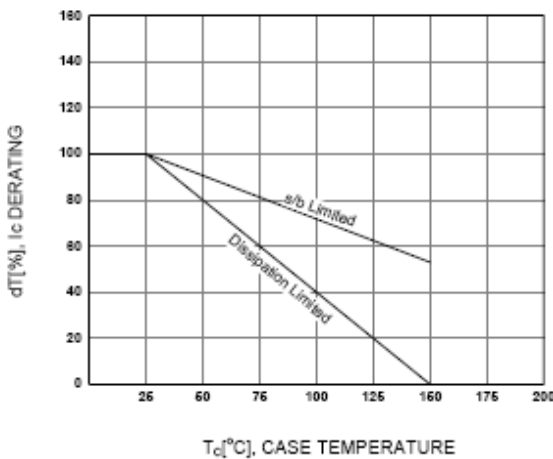


Figure 7. Derating Curve of Safe Operating Areas

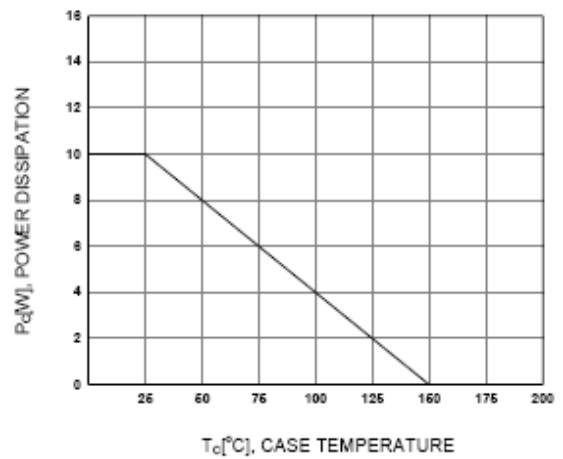


Figure 8. Power Derating



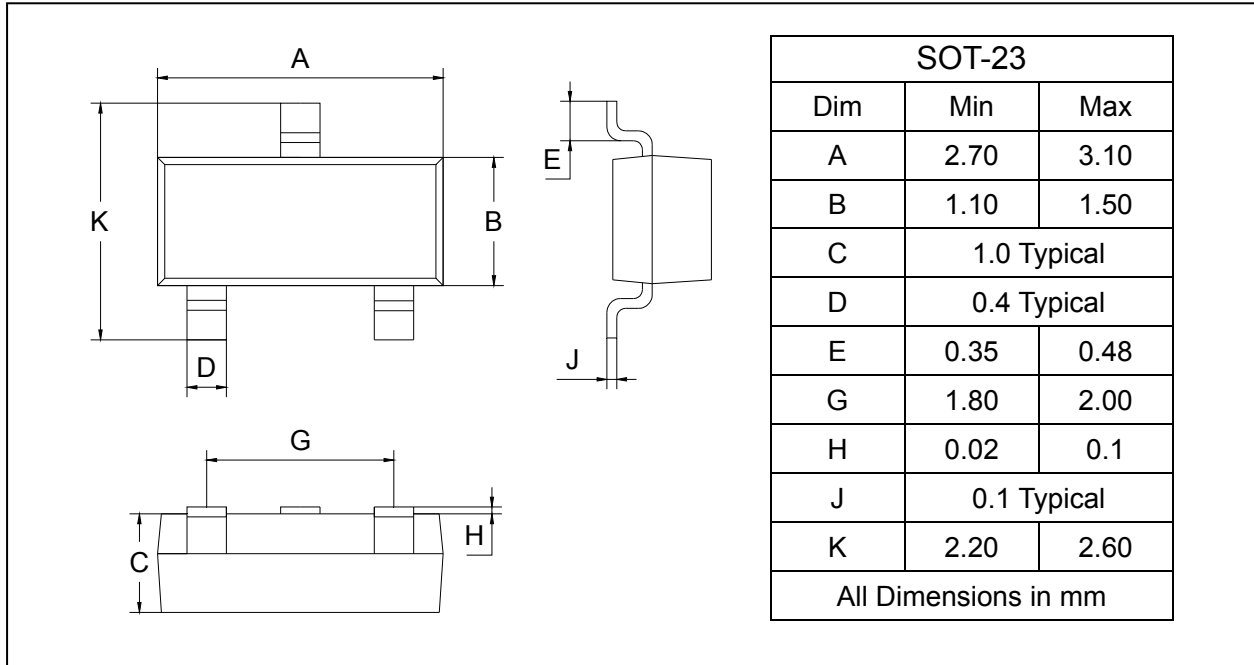
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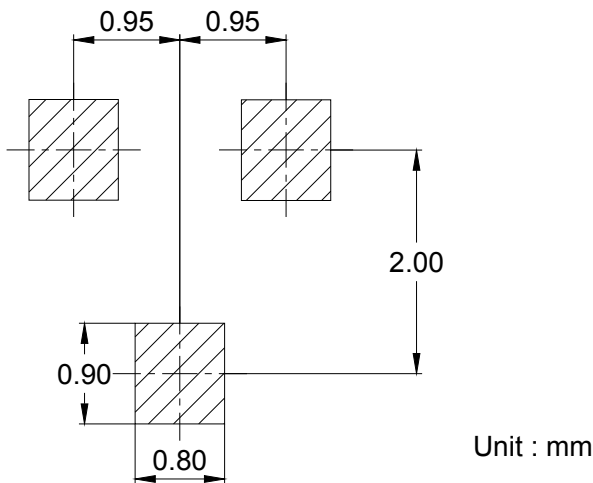
**PACKAGE OUTLINE**

Plastic surface mounted package

SOT-23



**SOLDERING FOOTPRINT**



**PACKAGE INFORMATION**

Device	Package	Shipping
B772	SOT-23	3000/Tape&Reel