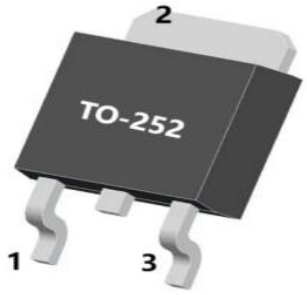
B772 HEF:200-300

PNP SILICON TRANSISTOR

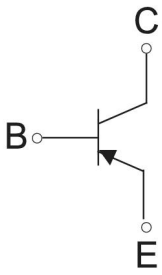
■ GENERAL DESCRIPTION

The 2SB772 is a medium power low voltage transistor, designed for audio power amplifier, DC-DC converter and voltage regulator.



1. BASE
2. COLLECTOR
3. EMITTER

Equivalent Circuit



■ FEATURES

*High current output up to 3A
*Low saturation voltage
*Complement to 2SD882

■ ABSOLUTE MAXIMUM RATINGS (TA=25°C, unless otherwise specified)

SYMBOL	PARAMETER		VALUE	UNIT
VCBO	Collector-Base Voltage		-40	V
VCEO	Collector-Emitter Voltage		-30	V
VEBO	Emitter-Base Voltage	TO-252	-7	V
IC	Collector Current (DC)		-3	A
ICP	Collector Current (Pulse)		-7	A
IB	Base Current		-0.6	A
PC	Collector Dissipation	TO-252	1	W
Tj	Operating Junction Temperature		+150	℃
Tstg	Storage Temperature		-55 to +150	℃

Notes: 1. Absolute maximum ratings are those values beyond which the device could be permanently damaged.
2. Absolutemaximum ratings are stress ratings only and functional device operation is not implied.

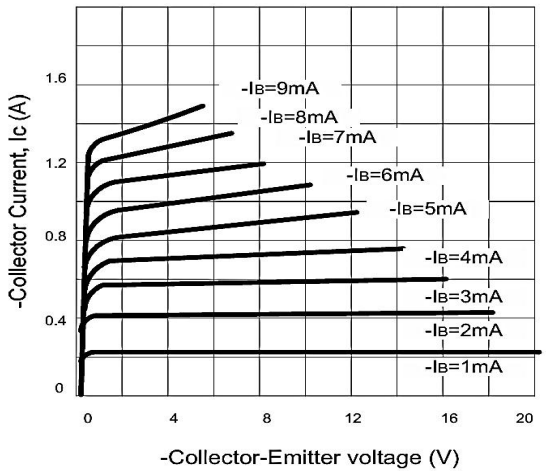
■ ELECTRICAL CHARACTERISTICS (T_A=25°C, unless otherwise specified)

PARAMETER	SYMBOL		TEST CONDITIONS		MIN	TYP	MAX	UNIT
Collector-Base Breakdown Voltage	V_{CBO}		I_C=-100μA, I_E=0		-40			V
Collector-Emitter Breakdown Voltage	V_{CEO}		I_C=-1mA, I_B=0		-30			V
Emitter-Base Breakdown Voltage	V_{EBO}		I_E=-100μA, IC=0	TO-252	-7			V
Collector Cut-Off Current	I_{CBO}		V_{CB}=-30V ,I_E=0				-1	μA
Collector Cut-Off Current	I_{CEO}		V_{CE}=-30V ,I_B=0				-1	μA
Emitter Cut-Off Current	I_{EBO}		V_{EB}=-5V, I_C=0				-1	μA
DC Current Gain (Note) (CLASSIFICATION OF h_{FE2})	h_{FE1}		V_{CE}=-2V, I_C=-20mA		30	200		
	h_{FE2}	**A**	V_{CE}=-2V, I_C=-1A		100		200	
		B			160		320	
		C			200		400	
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
Current Gain Bandwidth Product	f_T		V_{CE}=-5V, I_C=-0.1A			80		MHz
Output Capacitance	C_{OB}		V_{CB}=-10V, I_E=0,f=1MHz			45		pF

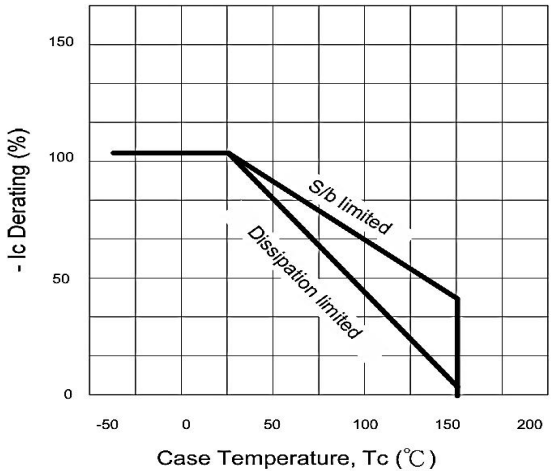
Note: Pulse test: PW ≤ 300μs, Duty Cycle ≤ 2%

■ TYPICAL CHARACTERISTICS

Static Characteristics

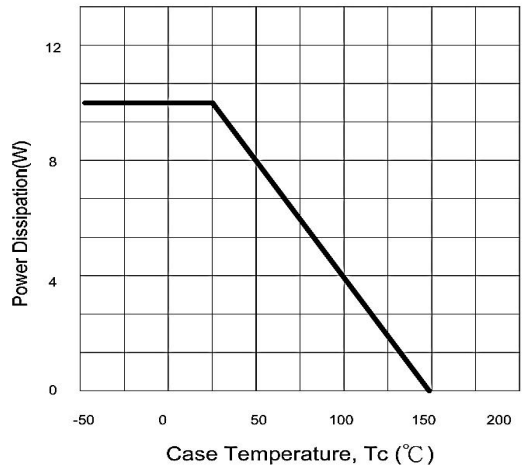


Derating Curve of Safe Operating Areas

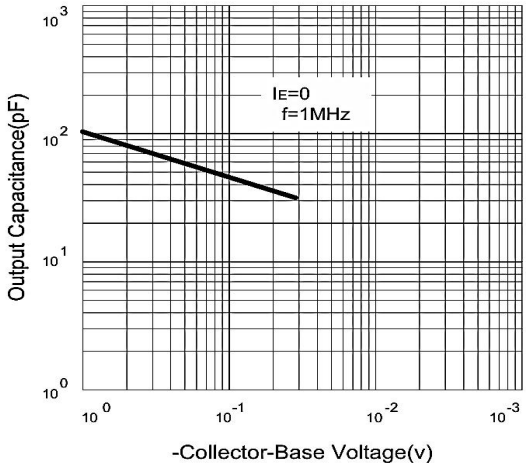


■ TYPICAL CHARACTERISTICS(Con.t)

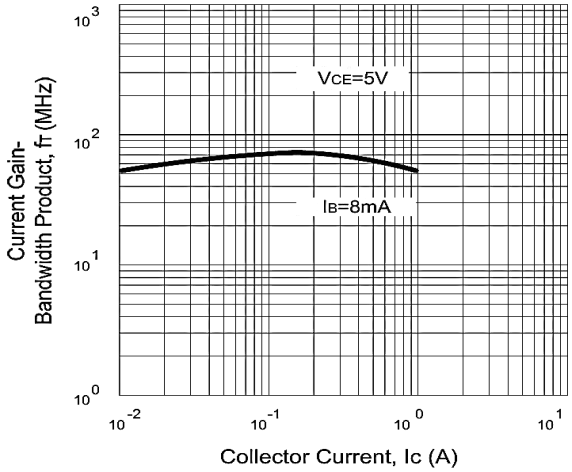
Power Derating



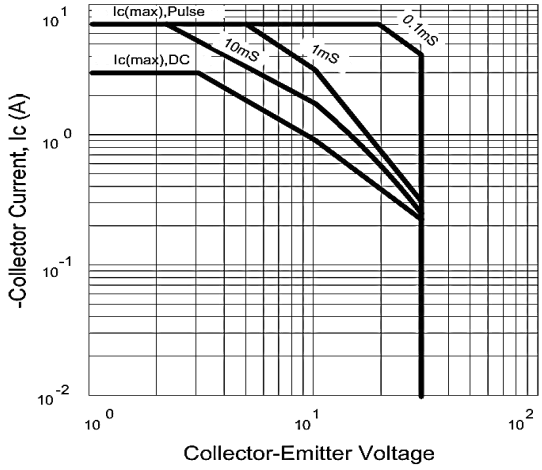
Collector Output Capacitance



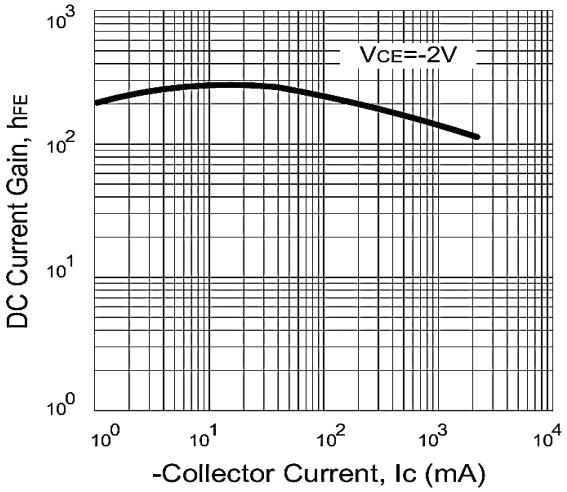
Current Gain-Bandwidth Product



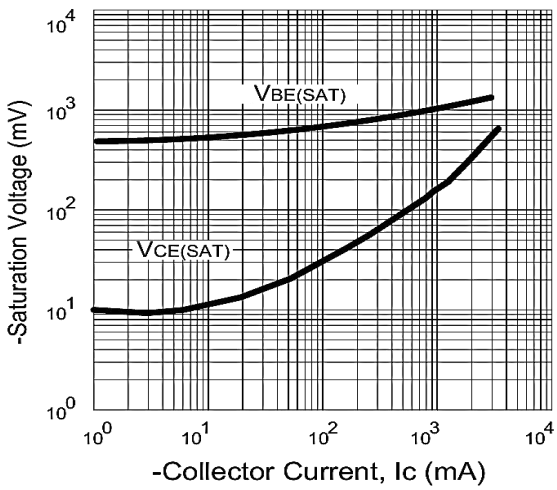
Safe Operating Area



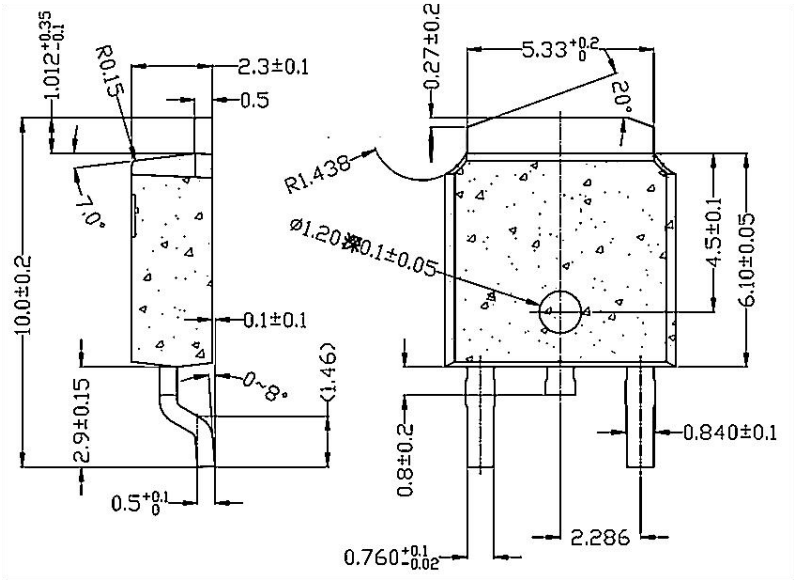
DC Current Gain

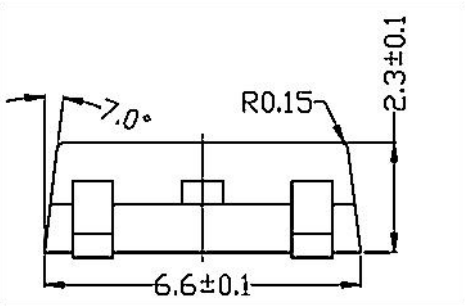


Saturation Voltage



■ TO - 252 PACKAGE OUTLINE DIMENSIONS





■ TO - 252 PACKING INFORMATION

Package version	Reel dimensions Φ×H (mm)	Per Reel (pcs)	Reels per box	Inner box dimensions L×W×H(mm)	Outer box (pcs)	Outer box dimensions L×W×H (mm)
TO-252	Φ330*20	2500	2	360*340*50	25000	375*375*280