

D882

NPN SILICON TRANSISTOR

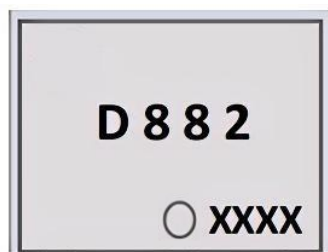
FEATURES

- *High current output up to 3A
- *Low saturation voltage
- *Complement to 2SB772

APPLICATIONS

- *Audio power amplifier
- * DC-DC convertor
- * Voltage regulator

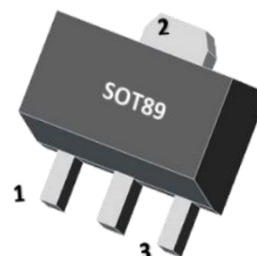
MARKING



D882=Device Code

XXXX=Date Code

Solid Dot=Green molding compound



1. BASE
2. COLLECTOR
3. EMITTER

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

SYMBOL	PARAMETER		VALUE	UNIT
V _{CB0}	Collector-Base Voltage		40	V
V _{CEO}	Collector-Emitter Voltage		30	V
V _{EB0}	Emitter-Base Voltage		7	V
I _C	Collector Current (DC)		3	A
I _{CP}	Collector Current (Pulse)		7	A
I _B	Base Current		0.6	A
P _C	Collector Dissipation	SOT-89	0.5	W
T _j	Operating Junction Temperature		+150	°C
T _{stg}	Storage Temperature		-55 to +150	°C

Notes: 1. Absolute maximum ratings are those values beyond which the device could be permanently damaged.

2. Absolute maximum ratings are stress ratings only and functional device operation is not implied.

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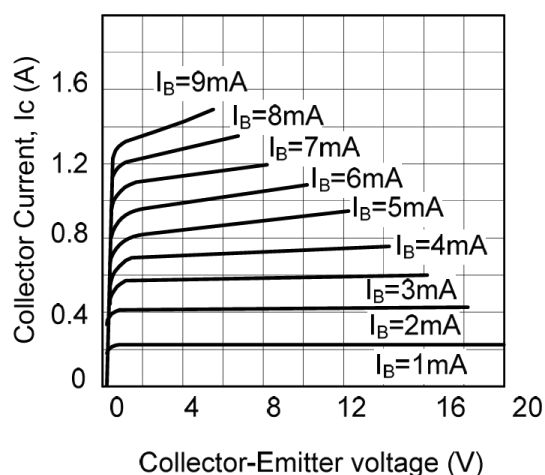
■ ELECTRICAL CHARACTERISTICS (T_A=25°C, unless otherwise specified)

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, I _C =0	7			V
Collector Cut-Off Current	I _{CBO}	V _{CB} =30V, I _E =0			1	μA
Emitter Cut-Off Current	I _{EBO}	V _{EB} =3V, 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}	V _{CE} =2V, I _C =1A	A	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

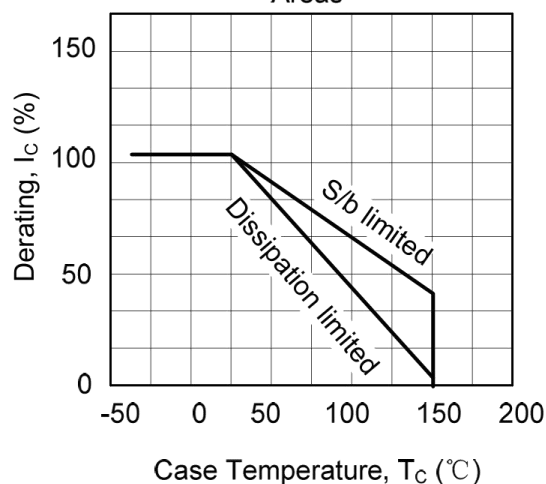
Note: Pulse test: P_w ≤ 300μs, Duty Cycle ≤ 2%

■ TYPICAL CHARACTERISTICS

Static Characteristics



Derating Curve of Safe Operating Areas

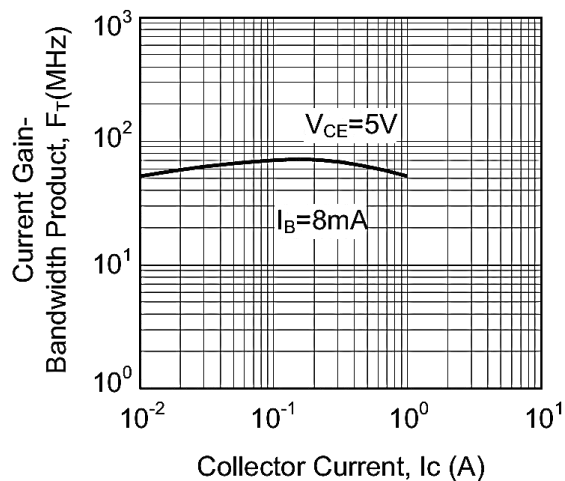


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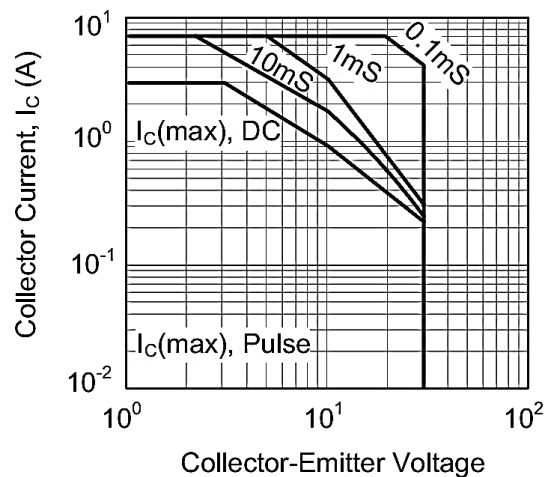
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■ TYPICAL CHARACTERISTICS(Con.t)

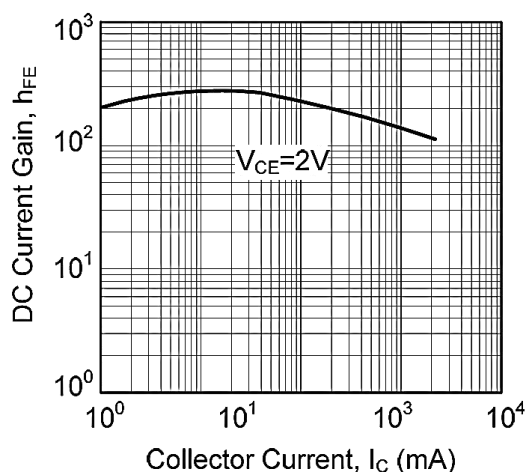
Current Gain-Bandwidth Product



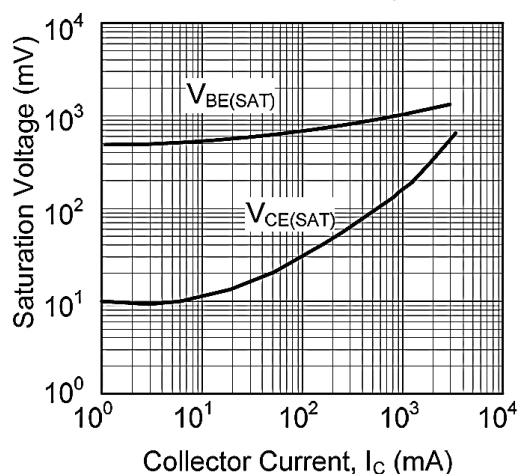
Safe Operating Area



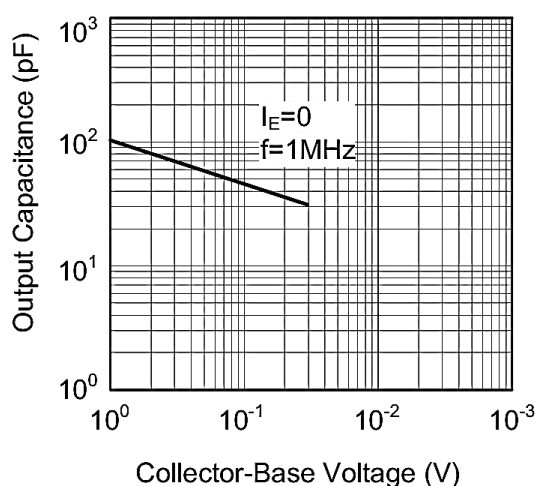
DC Current Gain



Saturation Voltage



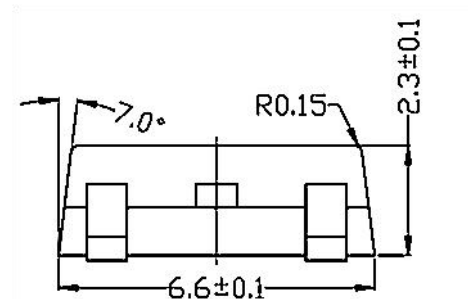
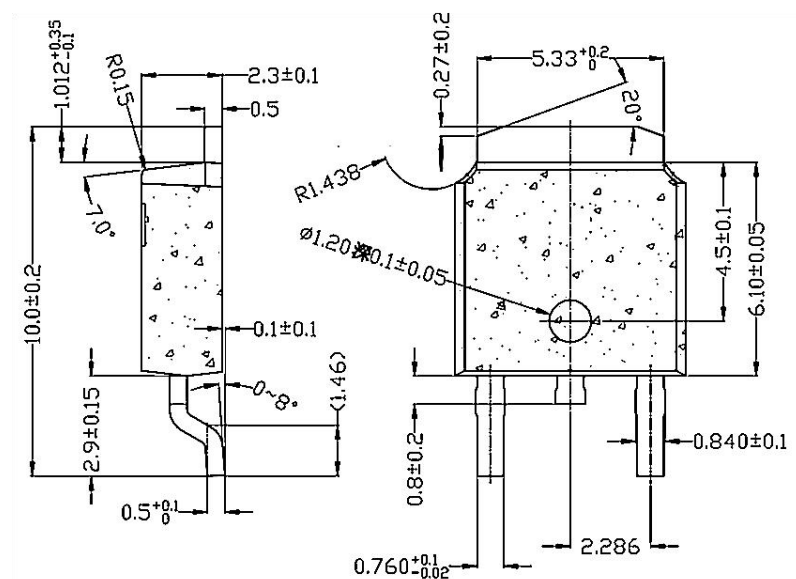
Collector Output Capacitance



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TO - 252 PACKAGE OUTLINE DIMENSIONS



TO - 252 PACKING INFORMATION

Package version	Reel dimensions $\phi \times H$ (mm)	Per Reel (pcs)	Reels per box	Inner box dimensions $L \times W \times H$ (mm)	Outer box (pcs)	Outer box dimensions $L \times W \times H$ (mm)
T0-252	$\phi 330 \times 20$	2500	2	360*340*50	25000	375*375*280