



2SD882

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

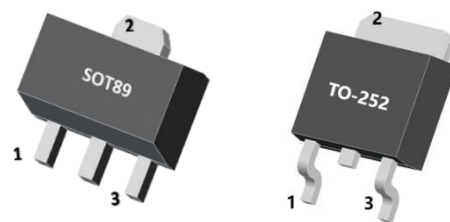


: HY LOGO

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	TO-252	1	W
		SOT-89	0.5	
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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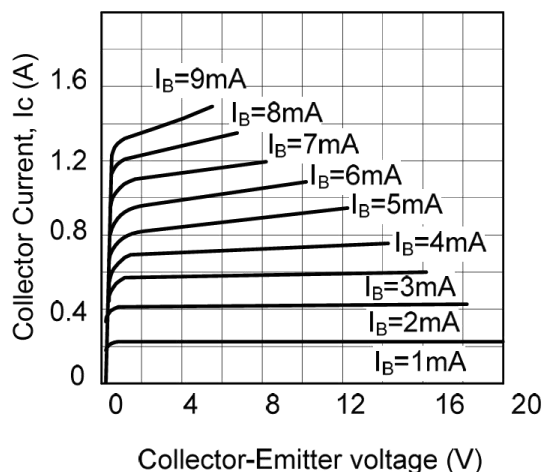
ELECTRICAL CHARACTERISTICS (T_A=25°C, unless otherwise specified)

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

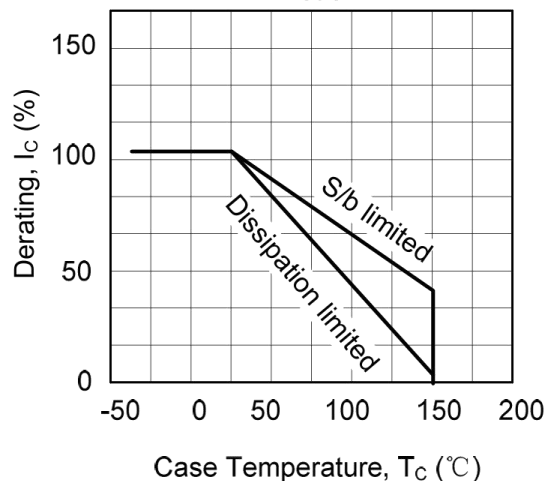
Note: Pulse test: P_w ≤ 300μs, Duty Cycle ≤ 2%

TYPICAL CHARACTERISTICS

Static Characteristics



Derating Curve of Safe Operating Areas



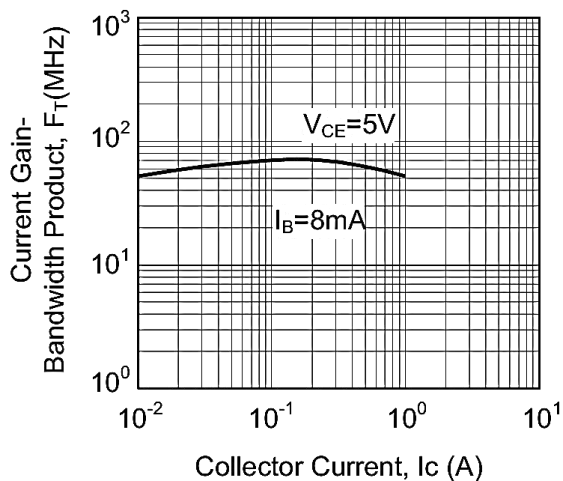


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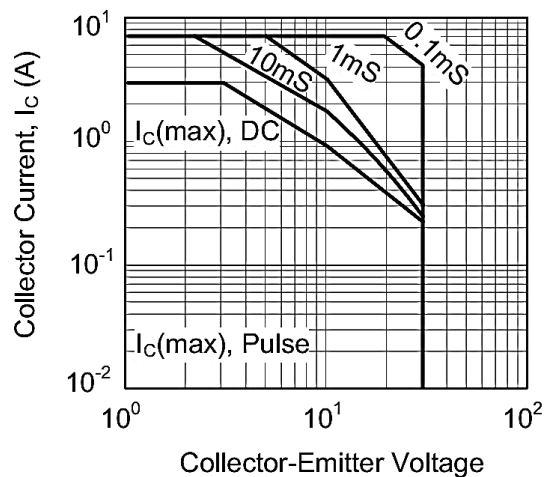
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■ TYPICAL CHARACTERISTICS(Con.t)

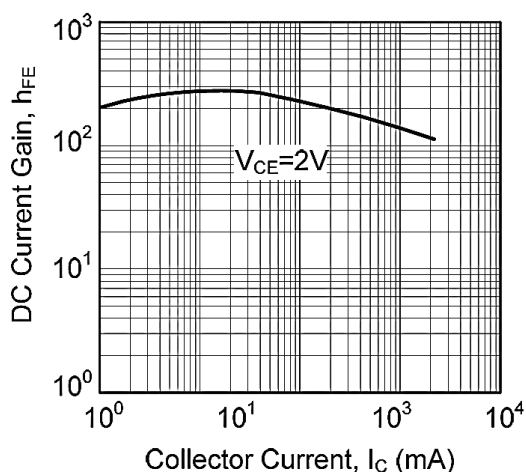
Current Gain-Bandwidth Product



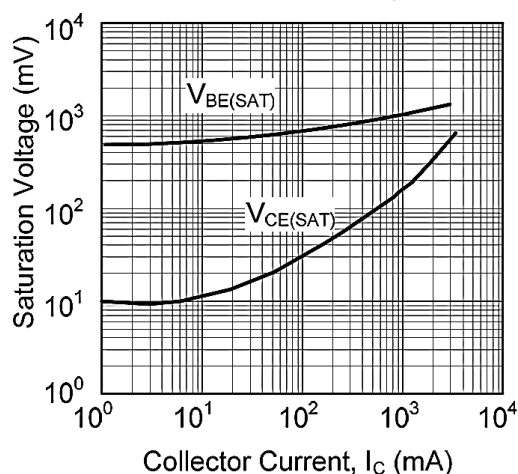
Safe Operating Area



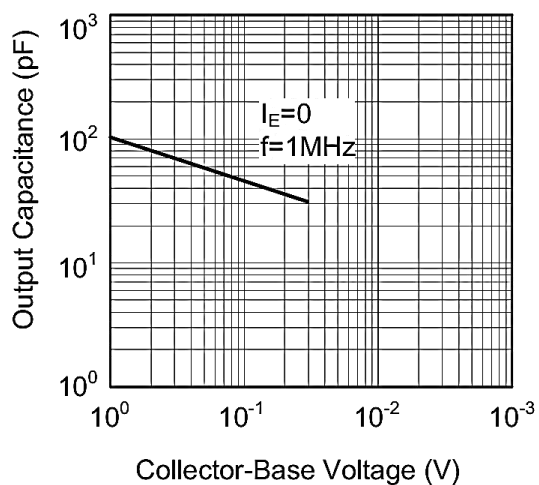
DC Current Gain



Saturation Voltage



Collector Output Capacitance

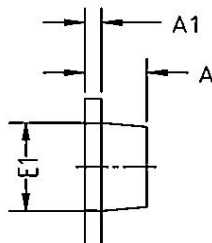
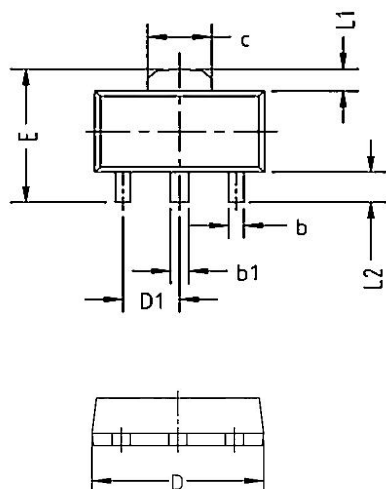




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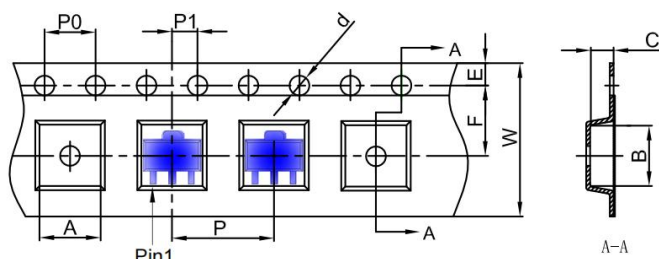
SOT89 PACKAGE OUTLINE DIMENSIONS



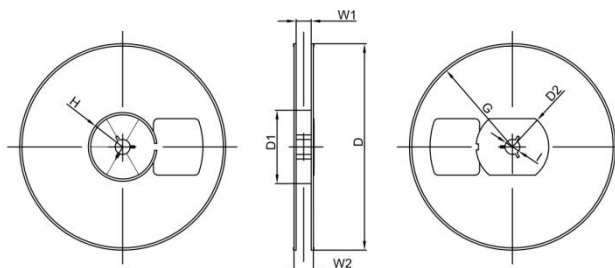
COMMON DIMENSION(MM)			
PKG	SOT-89		
Symbol	MIN	MON	MAX
A	1.450	1.500	1.550
A1	0.350	0.400	0.450
b	0.350	0.400	0.48
b1	0.430	0.480	0.550
C	1.500	1.550	1.650
D	4.450	4.550	4.700
D1	1.470	1.500	1.550
E	4.100	4.200	4.300
E1	2.500	2.550	2.650
L1	0.650	0.700	0.750
L2	0.900	0.950	1.000

SOT89 PACKAGING INFORMATION

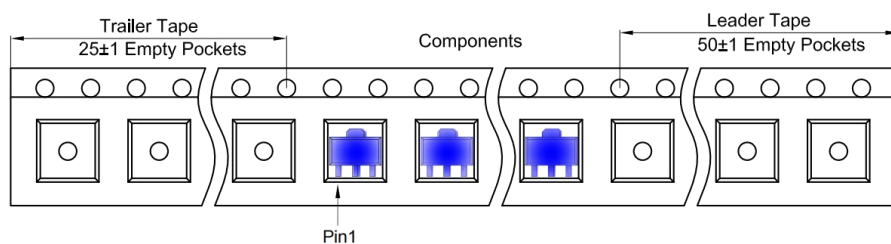
SOT-89 Embossed Carrier Tape



SOT-89 Reel



SOT-89 Tape Leader and Trailer



REEL	Reel Size
1000 pcs	7 inch

Dimensions are in millimeter

Reel Option	D	D1	D2	G	H	I	W1	W2
7"Dia	Ø180.00	60.00	R32.00	R86.50	R30.00	Ø13.00	13.20	16.50

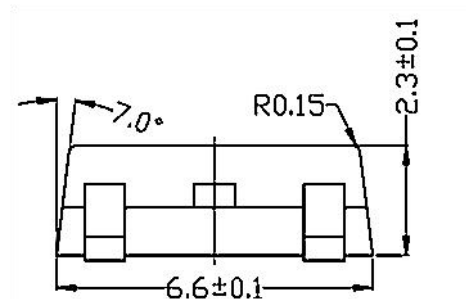
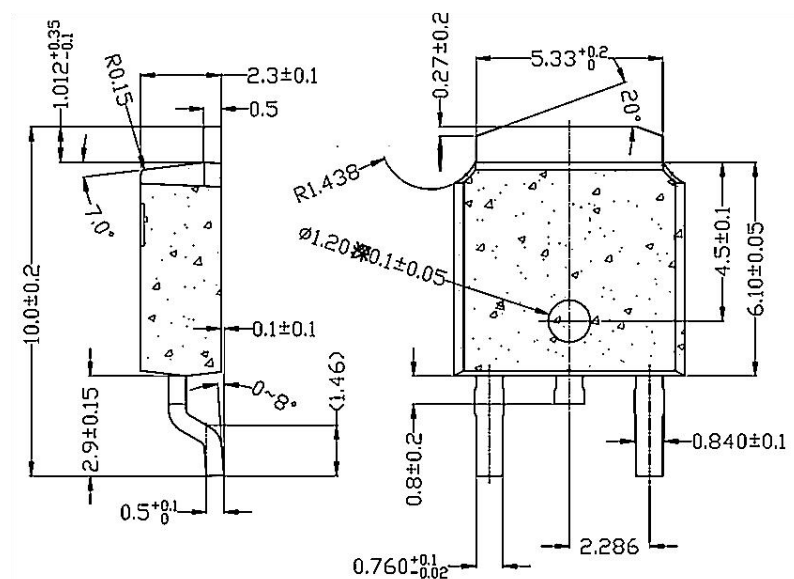
Dimensions are in millimeter

Pkg type	A	B	C	d	E	F	P0	P	P1	W
SOT-89-3L	4.85	4.45	1.85	Ø1.50	1.75	5.50	4.00	8.00	2.00	12.00

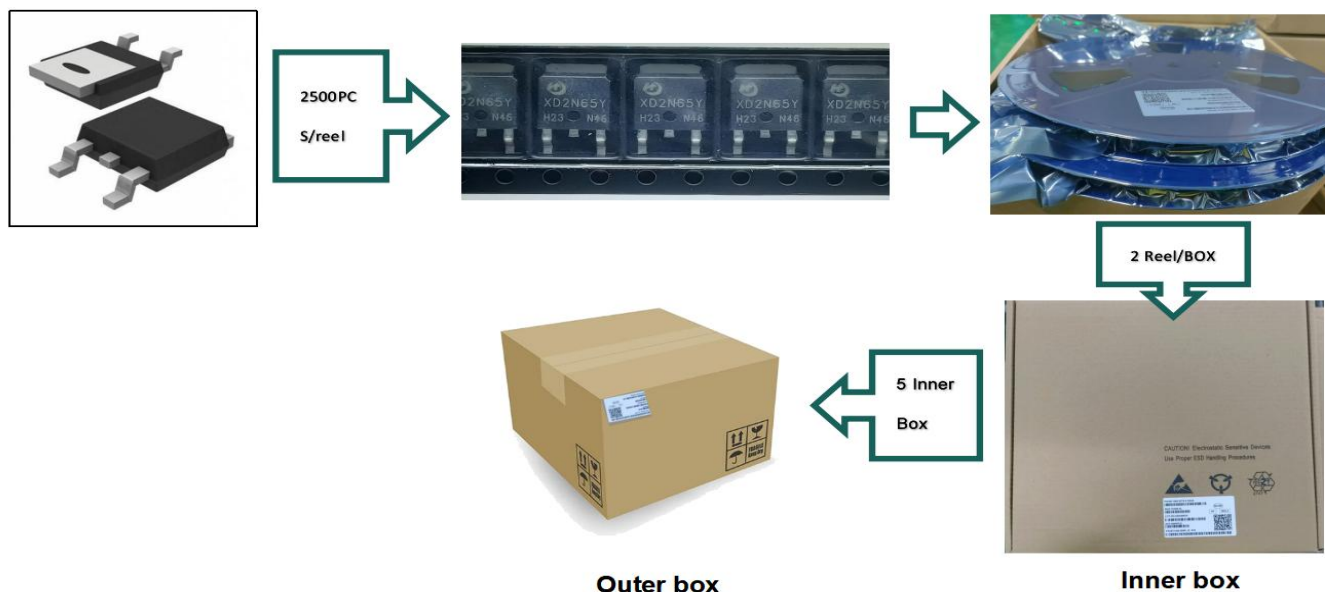
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■ TO - 252 PACKAGE OUTLINE DIMENSIONS



■ 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