

# 2SD882SS

## NPN SILICON TRANSISTOR

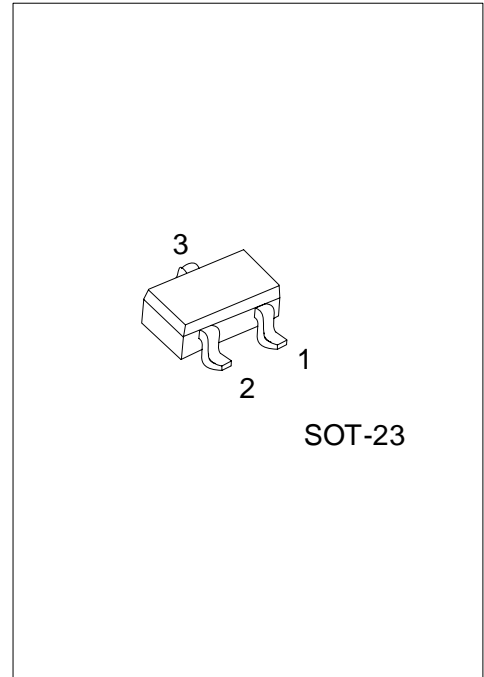
### MEDIUM POWER LOW VOLTAGE TRANSISTOR

■ FEATURES

- \* High current output up to 3A
- \* Low saturation voltage
- \* Complement to 2SB772SS

■ APPLICATIONS

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



SOT-23

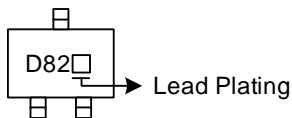
\*Pb-free plating product number: 2SD882SSL

■ ORDERING INFORMATION

Order Number		Package	Pin Assignment			Packing
Normal	Lead Free Plating		1	2	3	
2SD882SS -x-AE3-R	2SD882SSL-x-AE3-R	SOT-23	E	B	C	Tape Reel

<p>2SD882SSL-x-AE3-R</p>	<p>(1) R: Tape Reel</p> <p>(2) AE3: SOT-23</p> <p>(3) x: refer to Classification of <math>h_{FE2}</math></p> <p>(4) L: Lead Free Plating, Blank: Pb/Sn</p>
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■ MARKING



■ ABSOLUTE MAXIMUM RATING (Ta=25 , unless otherwise specified )

PARAMETER	SYMBOL	RATINGS	UNIT
Collector-Base Voltage	V <sub>CBO</sub>	40	V
Collector-Emitter Voltage	V <sub>CEO</sub>	30	V
Emitter-Base Voltage	V <sub>EBO</sub>	5	V
Collector Current	DC	I <sub>C</sub>	3
	Pulse	I <sub>CP</sub>	7
Base Current	I <sub>B</sub>	0.6	A
Collector Dissipation	Ta=25	P <sub>C</sub>	1
	Tc=25		10
Junction Temperature	T <sub>J</sub>	+150	
Storage Temperature	T <sub>STG</sub>	-55 ~ +150	

Note Absolute maximum ratings are those values beyond which the device could be permanently damaged. Absolute maximum ratings are stress ratings only and functional device operation is not implied.

■ ELECTRICAL CHARACTERISTICS (Ta=25 , unless otherwise specified)

PARAMETER	SYMBOL	TEST CONDITIONS	MIN	TYP	MAX	UNIT
Collector-Base Breakdown Voltage	BV <sub>CBO</sub>	I <sub>C</sub> =100μA, I <sub>E</sub> =0	40			V
Collector-Emitter Breakdown Voltage	BV <sub>CEO</sub>	I <sub>C</sub> =1mA, I <sub>B</sub> =0	30			V
Emitter-Base Breakdown Voltage	BV <sub>EBO</sub>	I <sub>E</sub> =100μA, I <sub>C</sub> =0	5			V
Collector Cut-off Current	I <sub>CBO</sub>	V <sub>CB</sub> =30V, I <sub>E</sub> =0			1000	nA
Emitter Cut-off Current	I <sub>EBO</sub>	V <sub>EB</sub> =3V, I <sub>C</sub> =0			1000	nA
DC Current Gain (Note 1)	h <sub>FE1</sub>	V <sub>CE</sub> =2V, I <sub>C</sub> =20mA	30	200		
	h <sub>FE2</sub>	V <sub>CE</sub> =2V, I <sub>C</sub> =1A	100	150	400	
Collector-Emitter Saturation Voltage	V <sub>CE(SAT)</sub>	I <sub>C</sub> =2A, I <sub>B</sub> =0.2A		0.3	0.5	V
Base-Emitter Saturation Voltage	V <sub>BE(SAT)</sub>	I <sub>C</sub> =2A, I <sub>B</sub> =0.2A		1.0	2.0	V
Current Gain Bandwidth Product	f <sub>T</sub>	V <sub>CE</sub> =5V, I <sub>C</sub> =0.1A		80		MHz
Output Capacitance	C <sub>ob</sub>	V <sub>CB</sub> =10V, I <sub>E</sub> =0, f=1MHz		45		pF

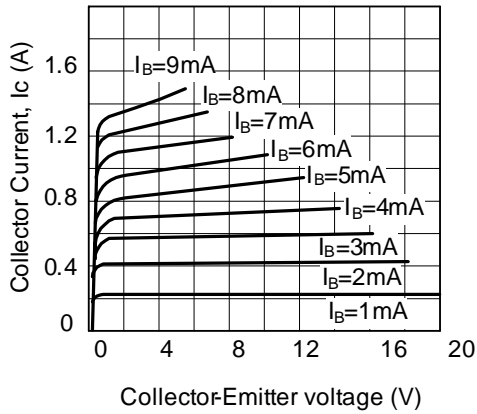
Note 1: Pulse test: PW<300μs, Duty Cycle<2%

■ CLASSIFICATION OF h<sub>FE2</sub>

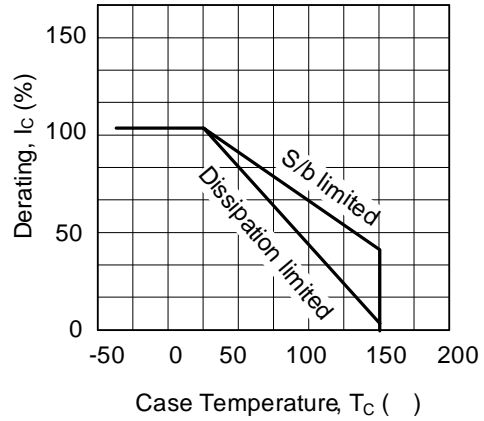
RANK	Q	P	E
RANGE	100-200	160-320	200-400

■ TYPICAL CHARACTERISTICS

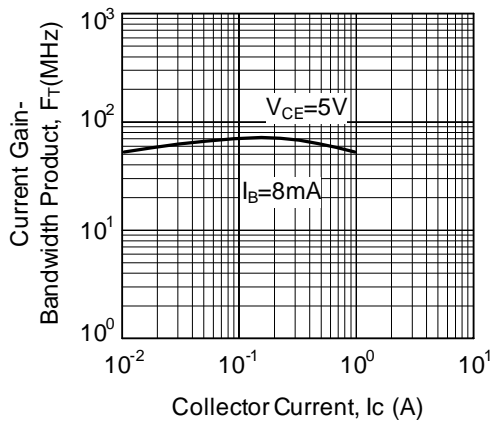
Static Characteristics



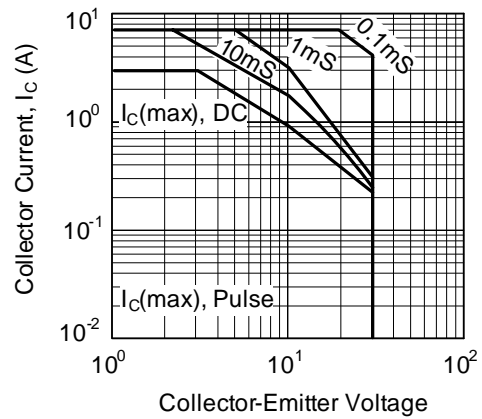
Derating Curve of Safe Operating Areas



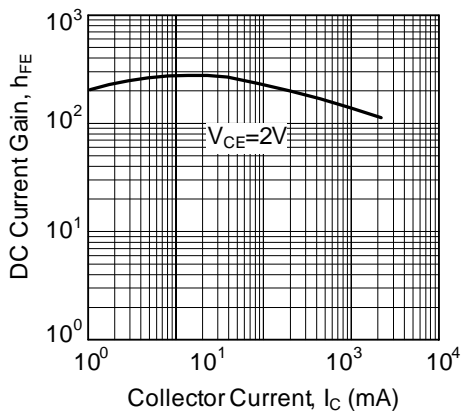
Current Gain-Bandwidth Product



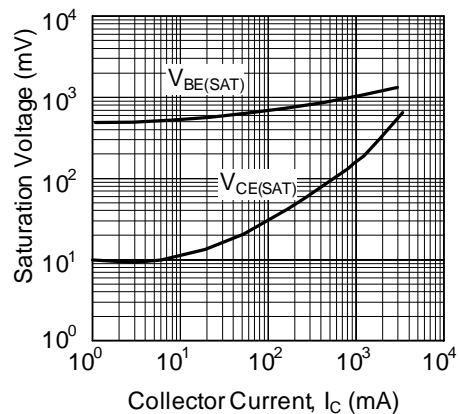
Safe Operating Area



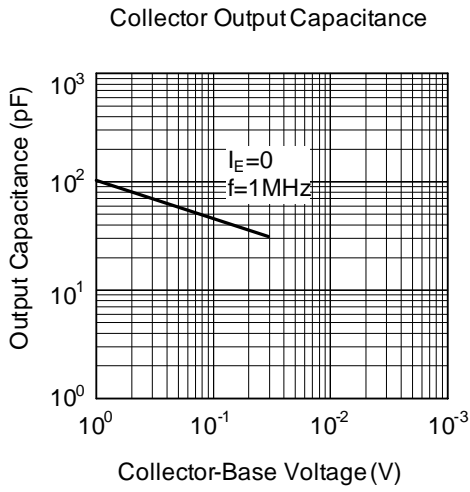
DC Current Gain



Saturation Voltage



■ TYPICAL CHARACTERISTICS(Cont.)



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