



# 2SD882

## NPN SILICON TRANSISTOR

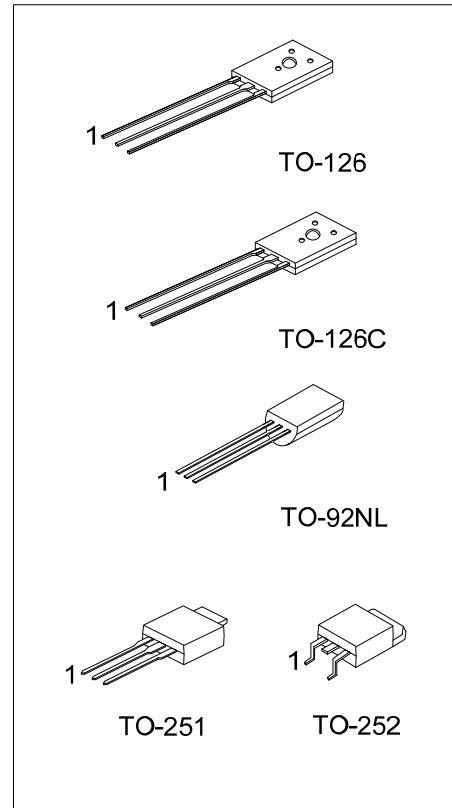
### MEDIUM POWER LOW VOLTAGE TRANSISTOR

■ FEATURES

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

■ APPLICATIONS

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



Lead-free: 2SD882L  
Halogen-free: 2SD882G

■ ORDERING INFORMATION

Ordering Number			Package	Pin Assignment			Packing
Normal	Lead Free	Halogen Free		1	2	3	
2SD882-x-T60-K	2SD882L-x-T60-K	2SD882G-x-T60-K	TO-126	E	C	B	Bulk
2SD882-x-T6C-K	2SD882L-x-T6C-K	2SD882G-x-T6C-K	TO-126C	E	C	B	Bulk
2SD882-x-TM3-T	2SD882L-x-TM3-T	2SD882G-x-TM3-T	TO-251	B	C	E	Tube
2SD882-x-TN3-R	2SD882L-x-TN3-R	2SD882G-x-TN3-R	TO-252	B	C	E	Tape Reel
2SD882-x-TN3-T	2SD882L-x-TN3-T	2SD882G-x-TN3-T	TO-252	B	C	E	Tube
2SD882-x-T9N-B	2SD882L-x-T9N-B	2SD882G-x-T9N-B	TO-92NL	E	C	B	Tape Box
2SD882-x-T9N-K	2SD882L-x-T9N-K	2SD882G-x-T9N-K	TO-92NL	E	C	B	Bulk

<p>2SD882L-x-T60-R</p> <ul style="list-style-type: none"> <li>(1)Packing Type</li> <li>(2)Package Type</li> <li>(3)Rank</li> <li>(4)Lead Plating</li> </ul>	<ul style="list-style-type: none"> <li>(1) B: Tape Box, K: Bulk, T: Tube, R: Tape Reel</li> <li>(2) T60: TO-126, T6C: TO-126C, TM3: TO-251, TN3: TO-252, T9N: TO-92NL</li> <li>(3) x: refer to Classification of <math>h_{FE2}</math></li> <li>(4) G: Halogen Free, L: Lead Free, Blank: Pb/Sn</li> </ul>
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■ ABSOLUTE MAXIMUM RATING (Ta=25°C, 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	A
	Pulse	I <sub>CP</sub>	7	A
Base Current		I <sub>B</sub>	0.6	A
Collector Dissipation (Ta=25°C)	TO-92NL	P <sub>C</sub>	0.5	W
	TO-251/TO-252/ TO-126/TO-126C		1	W
Junction Temperature		T <sub>J</sub>	+150	°C
Storage Temperature		T <sub>STG</sub>	-55 ~ +150	°C

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°C, 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

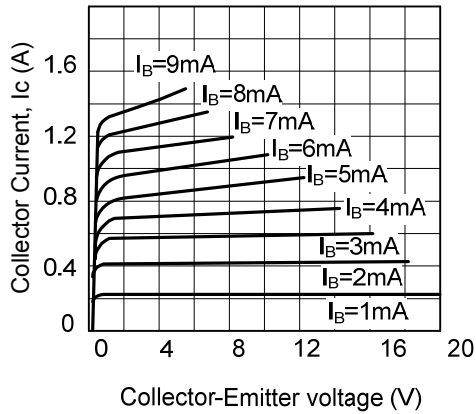
Note 1: Pulse test: PW<300μs, Duty Cycle<2%

■ CLASSIFICATION OF h<sub>FE2</sub>

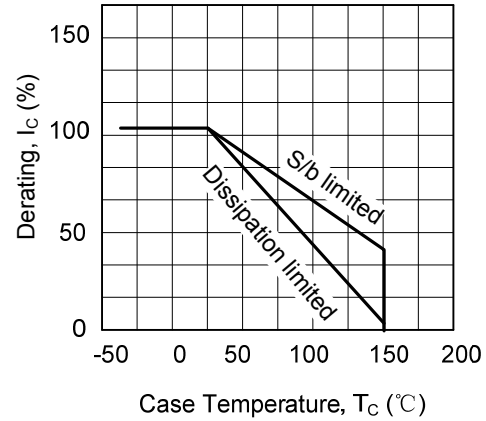
RANK	Q	P	E
RANGE	100-200	160-320	200-400

## TYPICAL CHARACTERISTICS

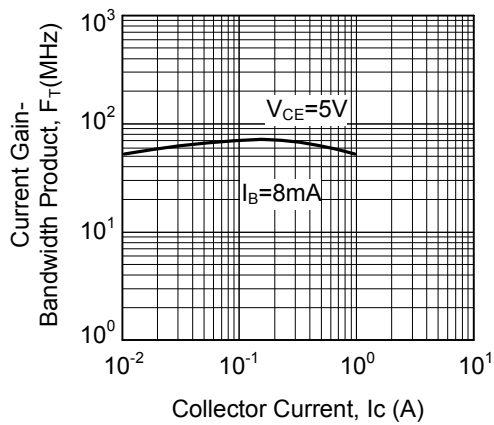
Static Characteristics



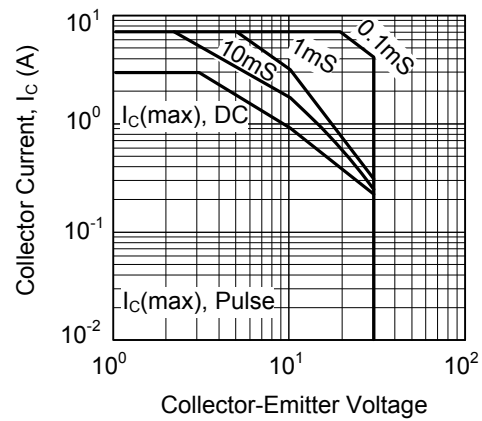
Derating Curve of Safe Operating Areas



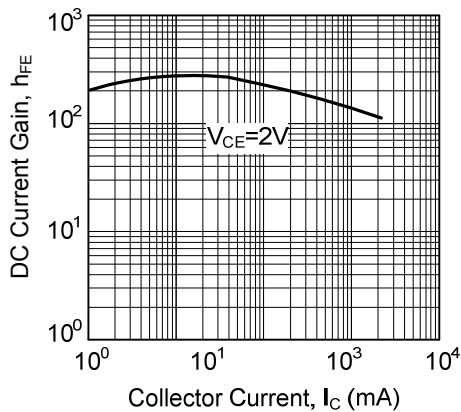
Current Gain-Bandwidth Product



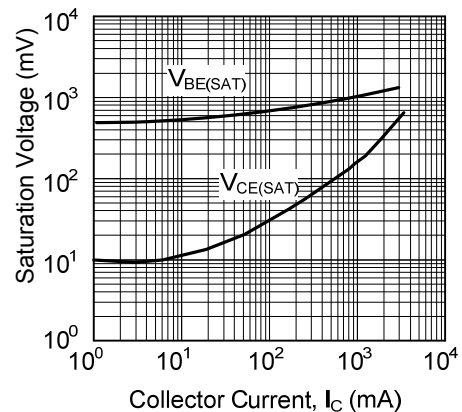
Safe Operating Area



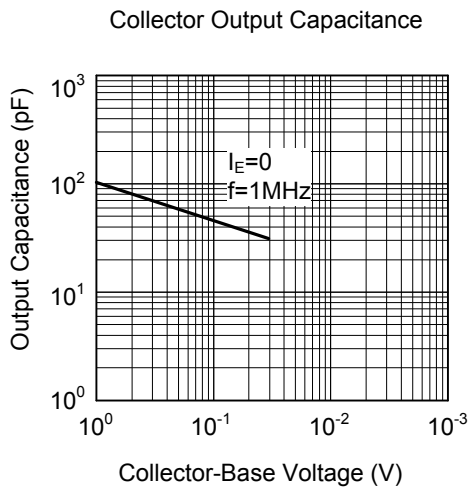
DC Current Gain



Saturation Voltage



■ TYPICAL CHARACTERISTICS(Cont.)



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