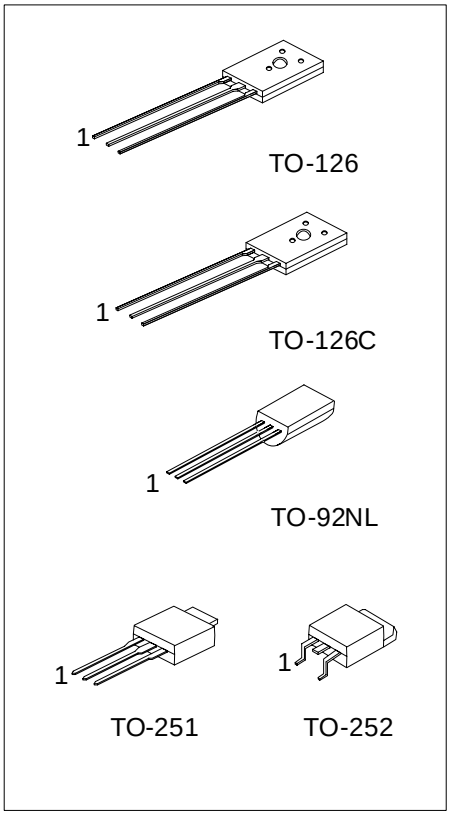
2SD882

NPN SILICON TRANSISTOR

MEDIUM POWER LOW VOLTAGE TRANSISTOR



*Pb-free plating product number: 2SD882L

■ FEATURES

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

■ APPLICATIONS

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

■ ORDERING INFORMATION

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

2SD882L-x-T60-R
(1)Packing Type
(2)Package Type
(3)Rank
(4)Lead Plating

(1) B: Tape Box, K: Bulk, T: Tube, R: Tape Reel
(2) T60: TO-126, T6C: TO-126C, TM3: TO-251, TN 3: TO-252, T9N: TO-92NL
(3) x: refer to Classification of h_{FE2}
(4) L: Lead Free Plating, Blank: Pb/Sn

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

PARAMETER		SYMBOL	RATINGS	UNIT
Collector-Base Voltage		V_{CBO}	40	V
Collector-Emitter Voltage		V_{CEO}	30	V
Emitter-Base Voltage		V_{EBO}	5	V
Collector Current	DC	I_C	3	A
	Pulse	I_{CP}	7	A
Base Current		I_B	0.6	A
Collector Dissipation (Ta=25℃)	TO-92NL	P_C	0.5	W
	TO-251/TO-252/ TO-126/TO-126C		1	W
Junction Temperature		T_J	+150	℃
Storage Temperature		T_{STG}	-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_{CBO}	I_C=100μA, I_E=0	40			V
Collector-Emitter Breakdown Voltage	BV_{CEO}	I_C=1mA, I_B=0	30			V
Emitter-Base Breakdown Voltage	BV_{EBO}	I_E=100μA, I_C=0	5			V
Collector Cut-off Current	I_{CBO}	V_{CB}=30V, I_E=0			1000	nA
Emitter Cut-off Current	I_{EBO}	V_{EB}=3V, I_C=0			1000	nA
DC Current Gain (Note 1)	h_{FE1}	V_{CE}=2V, I_C=20mA	30	200		
	h_{FE2}	V_{CE}=2V, I_C=1A	100	150	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	Cob	V_{CB}=10V, I_E=0, f=1MHz		45		pF

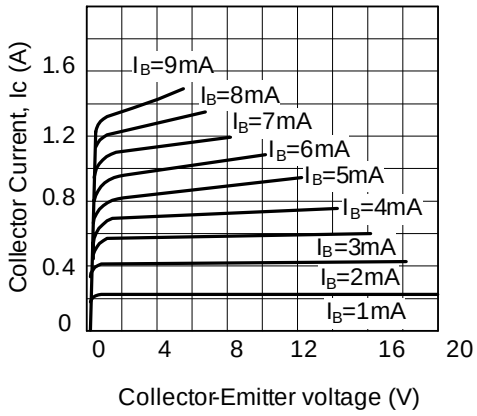
Note 1: Pulse test: PW<300μs, Duty Cycle<2%

■ CLASSIFICATION OF h_{FE2}

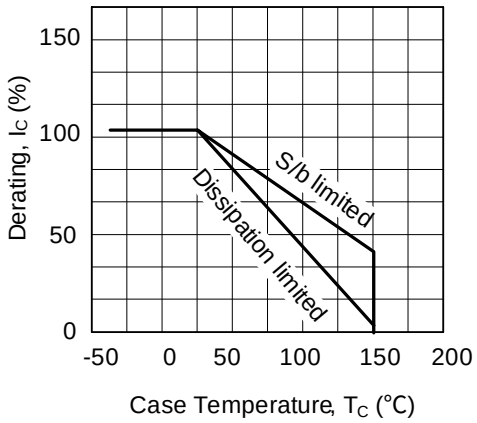
RANK	Q	P	E
RANGE	100-200	160-320	200-400

■ TYPICAL CHARACTERISTICS

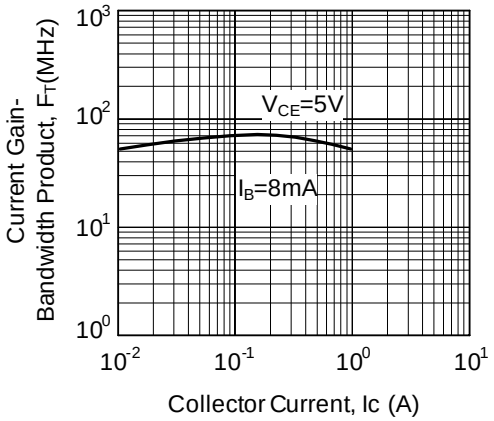
Static Characteristics



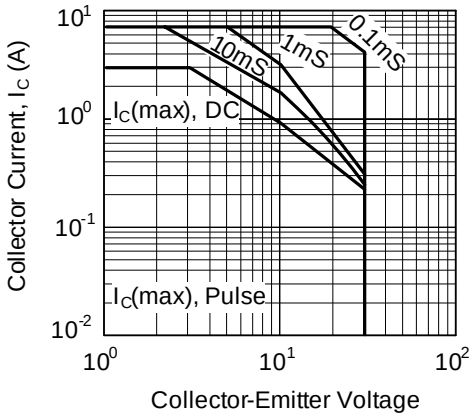
Derating Curve of Safe Operating Areas



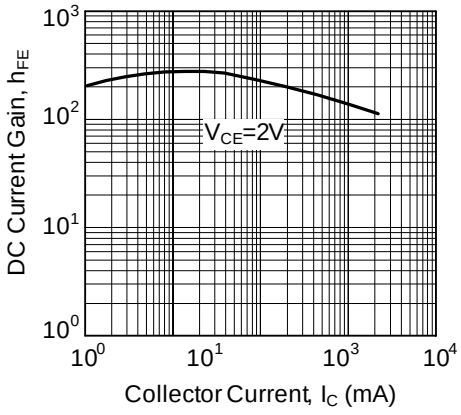
Current Gain-Bandwidth Product



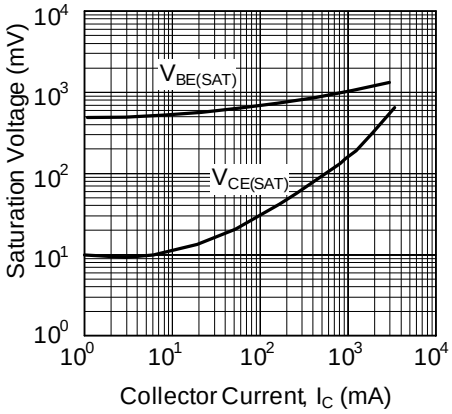
Safe Operating Area



DC Current Gain



Saturation Voltage



■ TYPICAL CHARACTERISTICS(Cont.)

Collector Output Capacitance