



D882SS

NPN SILICON TRANSISTOR

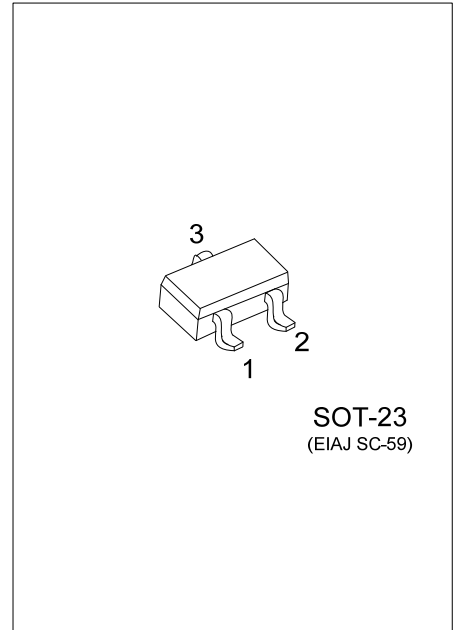
MEDIUM POWER LOW VOLTAGE TRANSISTOR

FEATURES

- * High Current Output up to 3A
- * Low Saturation Voltage
- * Complement to B772SS

APPLICATIONS

- * Audio Power Amplifier
- * DC-DC Converter
- * Voltage Regulator



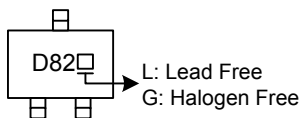
ORDERING INFORMATION

Ordering Number		Package	Pin Assignment			Packing
Lead Free	Halogen Free		1	2	3	
D882SSL-x-AE3-R	D882SSG-x-AE3-R	SOT-23	B	E	C	Tape Reel

Note: Pin Assignment: B: Base E: Emitter C: Collector

<p>D882SSG-x-AE3-R</p>	<p>(1)Packing Type</p> <p>(2)Package Type</p> <p>(3)Rank</p> <p>(4)Green Package</p>	<p>(1) R: Tape Reel</p> <p>(2) AE3: SOT-23</p> <p>(3) x: refer to Classification of h_{FE2}</p> <p>(4) G: Halogen Free and Lead Free, L: Lead Free</p>
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MARKING



■ ABSOLUTE MAXIMUM RATING ($T_A=25^{\circ}\text{C}$, 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
	Pulse	I_{CP}	7
Base Current	I_B	0.6	A
Collector Dissipation	$T_A=25^{\circ}\text{C}$	P_C	350
	$T_C=25^{\circ}\text{C}$		10
Junction Temperature	T_J	+150	$^{\circ}\text{C}$
Storage Temperature	T_{STG}	-55 ~ +150	$^{\circ}\text{C}$

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 ($T_A=25^{\circ}\text{C}$, unless otherwise specified)

PARAMETER	SYMBOL	TEST CONDITIONS	MIN	TYP	MAX	UNIT
Collector-Base Breakdown Voltage	BV_{CBO}	$I_C=100\mu\text{A}, I_E=0$	40			V
Collector-Emitter Breakdown Voltage	BV_{CEO}	$I_C=1\text{mA}, I_B=0$	30			V
Emitter-Base Breakdown Voltage	BV_{EBO}	$I_E=100\mu\text{A}, I_C=0$	5			V
Collector Cut-off Current	I_{CBO}	$V_{CB}=30\text{V}, I_E=0$			1000	nA
Emitter Cut-off Current	I_{EBO}	$V_{EB}=3\text{V}, I_C=0$			1000	nA
DC Current Gain (Note)	h_{FE1}	$V_{CE}=2\text{V}, I_C=20\text{mA}$	30	200		
	h_{FE2}	$V_{CE}=2\text{V}, I_C=1\text{A}$	100	150	400	
Collector-Emitter Saturation Voltage	$V_{CE(SAT)}$	$I_C=2\text{A}, I_B=0.2\text{A}$		0.3	0.5	V
Base-Emitter Saturation Voltage	$V_{BE(SAT)}$	$I_C=2\text{A}, I_B=0.2\text{A}$		1.0	2.0	V
Current Gain Bandwidth Product	f_T	$V_{CE}=5\text{V}, I_C=0.1\text{A}$		80		MHz
Output Capacitance	C_{ob}	$V_{CB}=10\text{V}, I_E=0, f=1\text{MHz}$		45		pF

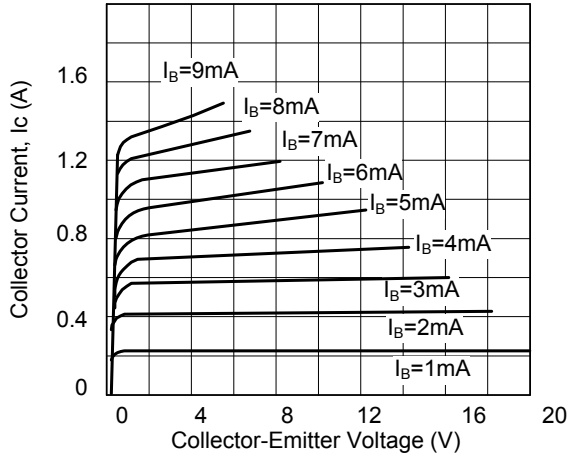
Note: Pulse test: $PW < 300\mu\text{s}$, Duty Cycle $< 2\%$

■ CLASSIFICATION OF h_{FE2}

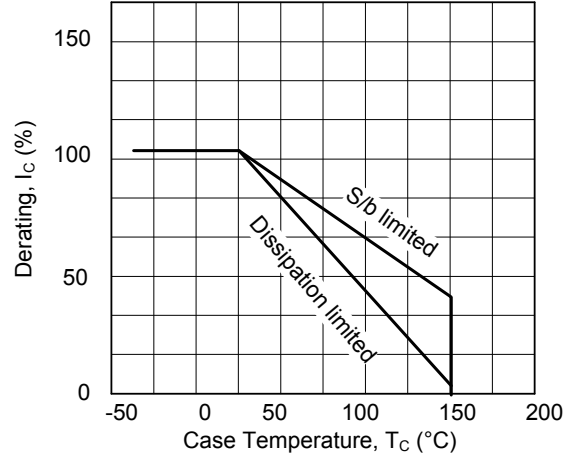
RANK	Q	P	E
RANGE	100-200	160-320	200-400

TYPICAL CHARACTERISTICS

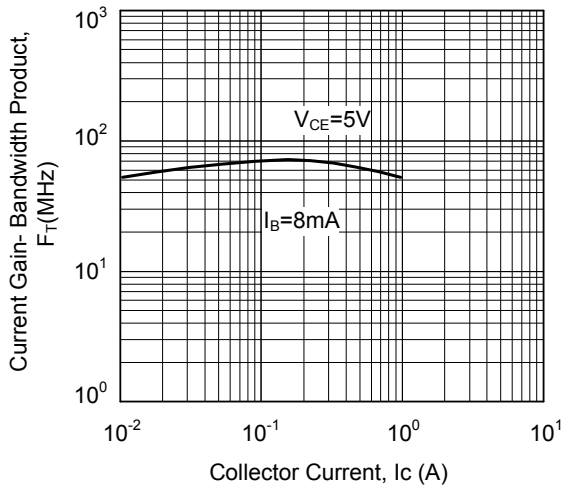
Static Characteristics



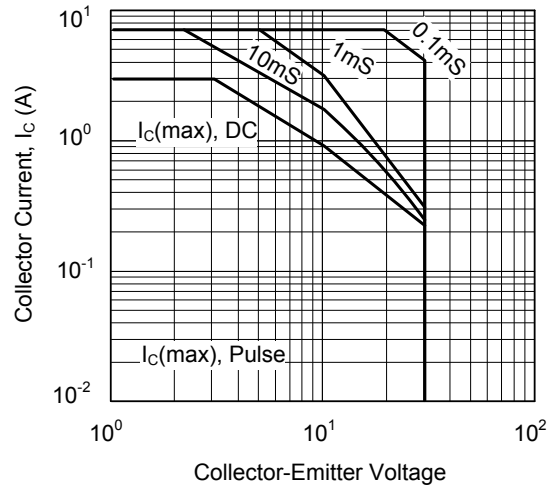
Derating Curve of Safe Operating Areas



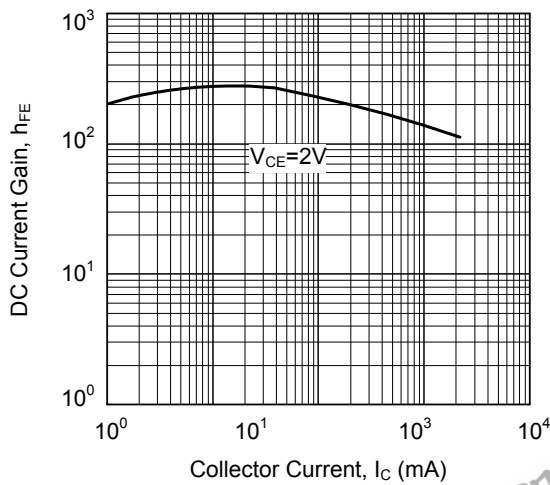
Current Gain-Bandwidth Product



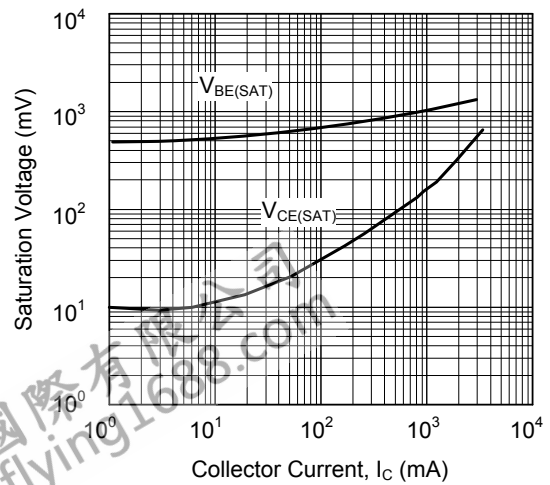
Safe Operating Area



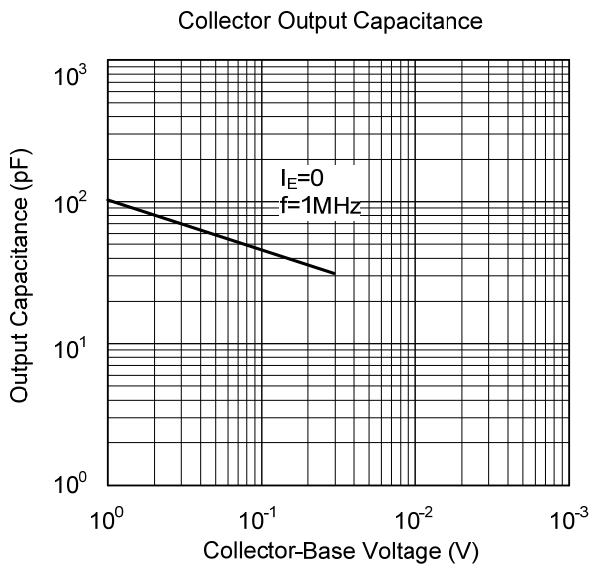
DC Current Gain



Saturation Voltage



■ TYPICAL CHARACTERISTICS (Cont.)



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