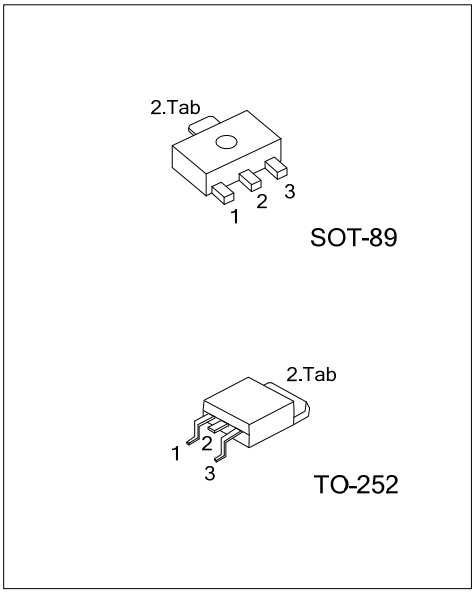
2SB1182

PNP SILICON TRANSISTOR

MEDIUM POWER LOW VOLTAGE TRANSISTOR



■ DESCRIPTION

The UTC **2SB1182** is a medium power low voltage transistor, designed for audio power amplifier, DC-DC converter and voltage regulator.

■ FEATURES

* High current output up to 3A
* Low saturation voltage

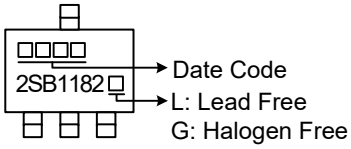
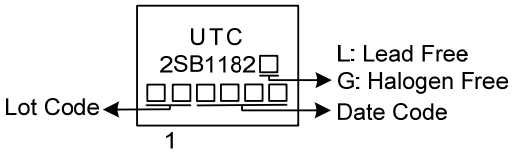
■ ORDERING INFORMATION

Ordering Number		Package	Pin Assignment			Packing
Lead Free	Halogen Free		1	2	3	
2SB1182L-x-AB3-R	2SB1182G-x-AB3-R	SOT-89	B	C	E	Tape Reel
2SB1182L-x-TN3-R	2SB1182G-x-TN3-R	TO-252	B	C	E	Tape Reel

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

2SB1182G-x-AB3-R (1)Packing Type (2)Package Type (3)Rank (4)Green Package	(1) R: Tape Reel (2) AB3: SOT-89, TN3: TO-252 (3) refer to Classification of h_{FE2} (4) G: Halogen Free and Lead Free, L: Lead Free

■ MARKING

SOT-89	TO-252
	

■ ABSOLUTE MAXIMUM RATINGS (T_A=25°C, unless otherwise specified)

PARAMETER		SYMBOL	RATINGS	UNIT
Collector-Base Voltage		V_{CBO}	-40	V
Collector-Emitter Voltage		V_{CEO}	-32	V
Emitter-Base Voltage		V_{EBO}	-5	V
Collector Current	DC	I_C	-2	A
	Pulse	I_{CP}	-3	A
Base Current		I_B	-0.6	A
Collector Dissipation (T_C=25°C)	SOT-89	P_C	3.5	W
	TO-252		10	W
Junction Temperature		T_J	+150	°C
Storage Temperature		T_{STG}	-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 (T_A=25°C, unless otherwise specified)

PARAMETER	SYMBOL	TEST CONDITIONS	MIN	TYP	MAX	UNIT
Collector-Base Breakdown Voltage	BV_{CBO}	I_C=-50μA	-40			V
Collector-Emitter Breakdown Voltage	BV_{CEO}	I_C=-1mA	-32			V
Emitter-Base Breakdown Voltage	BV_{EBO}	I_E=-50μA	-5			V
Collector Cut-Off Current	I_{CBO}	V_{CB}=-20V			-1	μA
Collector Cut-Off Current	I_{CEO}	V_{CE}=-20V			-1	μA
Emitter Cut-Off Current	I_{EBO}	V_{EB}=-4V			-1	μA
DC Current Gain(Note 1)	h_{FE}	V_{CE}=-3V, I_C=-0.5A	120		390	
Collector-Emitter Saturation Voltage	$V_{CE(SAT)}$	I_C=-2A, I_B=-0.2A		-0.5	-0.8	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_E=0.5 A, ,f=100MHz		100		MHz
Output Capacitance	C_{OB}	V_{CB}=-10V, I_E=0 A,f=1MHz		50		pF

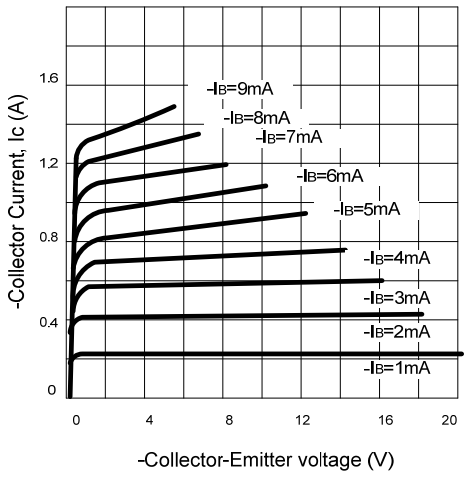
Note 1: Pulse test: P_W ≤ 300μs, Duty Cycle ≤ 2%.

■ CLASSIFICATION OF h_{FE2}

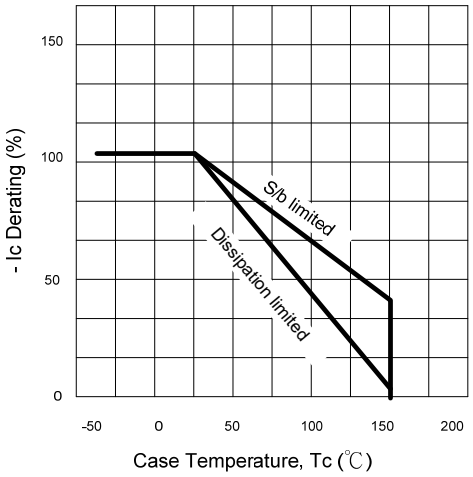
RANK	Q	R
RANGE	120 ~ 270	180 ~ 390

■ TYPICAL CHARACTERICS

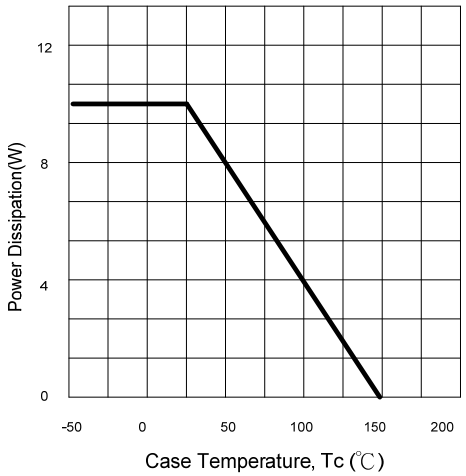
Static Characteristics



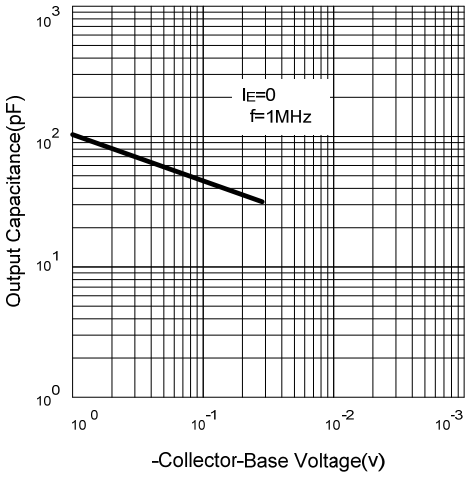
Derating Curve of Safe Operating Areas



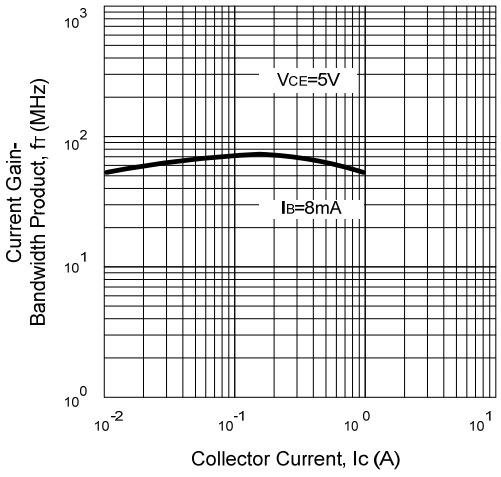
Power Derating



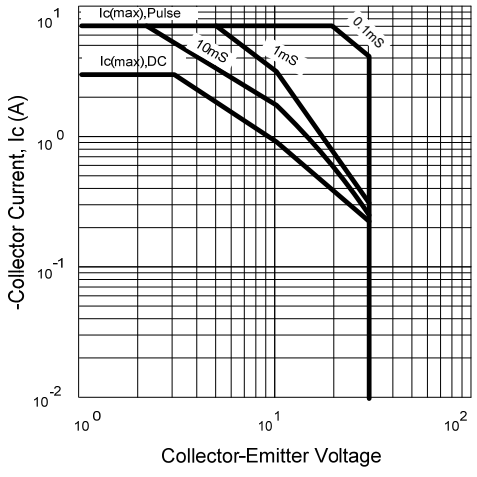
Collector Output Capacitance



Current Gain-Bandwidth Product

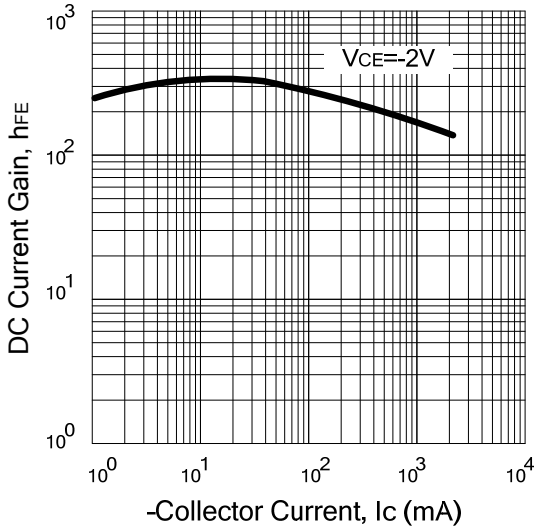


Safe Operating Area



■ TYPICAL CHARACTERICS (Cont.)

DC Current Gain



Saturation Voltage