SSCP005GSB

High Frequency High Gain PNP Power BJT

➢ Features

VCE	VBE	VCESAT Typ.	IC
-40V	-6V	-150mV	-3A

➢ Description

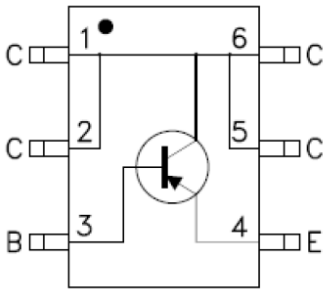
This device is produced with advanced high carrier density technology, which is especially used to minimize saturation voltage drop. This device particularly suits low voltage applications such as portable equipment, power management and other battery powered circuits, and low in-line power dissipation are needed in a very small outline surface mount package. Excellent thermal and electrical capabilities.

➢ Applications

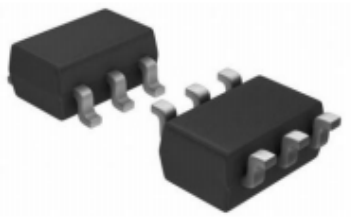
- Battery powered circuits
- Low in-line power dissipation circuits
- Power regulator

➢ Pin configuration

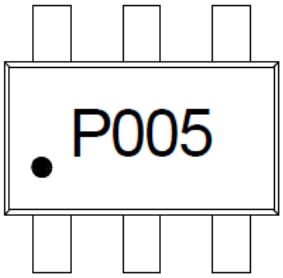
Top view



SOT23-6L



Bottom view



Marking

➢ Ordering Information

Device	Package	Shipping
SSCP005GSB	SOT23-6L	3000/Reel

➢ Absolute Maximum Ratings(T_A=25℃ unless otherwise specified)

Symbol	Parameter	Ratings	Unit
V_{CBO}	Collector-Base Voltage	-40	V
V_{CEO}	Collector-Emitter Voltage	-40	V
V_{EBO}	Emitter-Base Voltage	-6	V
I_C	Collector Current@Note1	-3	A
	Collector Current@Note2	-2	
I_{CM}	Pulsed Collector Current@Note3	-6	A
P_D	Power Dissipation@Note1	1.2	W
	Power Dissipation@Note2	0.8	
T_A	Operation Temperature Range	-40 to 85	℃
T_L	Lead Temperature	260	℃
T_J,T_{STG}	Operation and Storage temperature range	-55 to 150	℃

➢ Thermal Resistance Ratings

Symbol	Parameter	Maximum	Unit
$R_{\theta JA}$	Junction-to-Ambient Thermal Resistance@Note1	109	℃/W
$R_{\theta JA}$	Junction-to-Ambient Thermal Resistance@Note2	160	

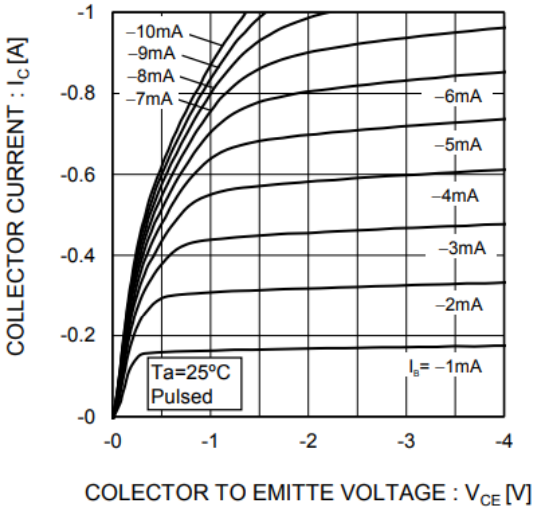
➢ **Electronics Characteristics**(T_A=25℃ unless otherwise specified)

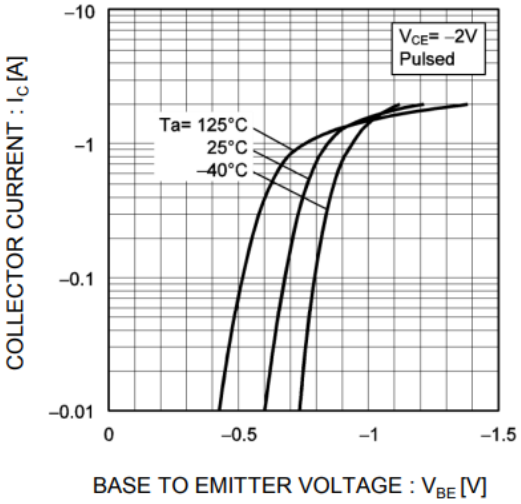
Symbol	Parameter	Test Conditions	Min	Typ.	Max	Unit
BVCBO	Collector-Base Breakdown Voltage	IC=-50uA IE=0	-40			V
BVCEO	Collector-Emitter Breakdown Voltage	IC=-1mA IB=0	-40			V
BVEBO	Emitter-Base Breakdown Voltage	IE=-1uA IC=0	-6			V
ICBO	Collector cut off current	VCB=-20V IE=0			-0.1	uA
IEBO	Emitter cut off current	VEB=-4V IC=0			-0.1	uA
HFE	DC Current Gain@Note3	VCE=-2V IC=-0.5A	100	200	350	
VCESAT	Collector-Emitter Saturation Voltage	IC=-1.5A IB=-80mA			-0.2	V
VBESAT	Base-Emitter Saturation Voltage	IC=-1.5A IB=-80mA			-1.2	V
f_T	Transition frequency	VCE=-5V , IE=-0.1A f=10MHz	50	80		MHz

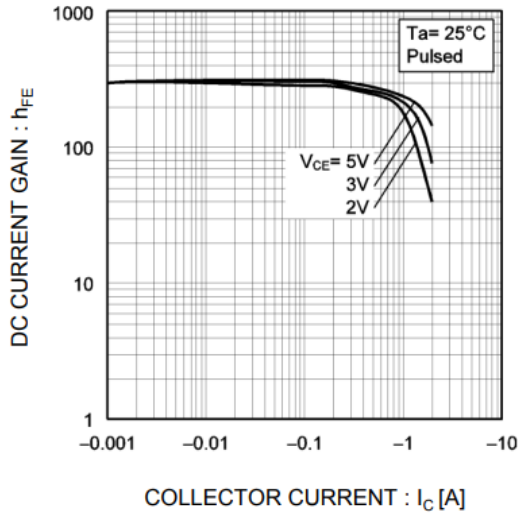
Notes:

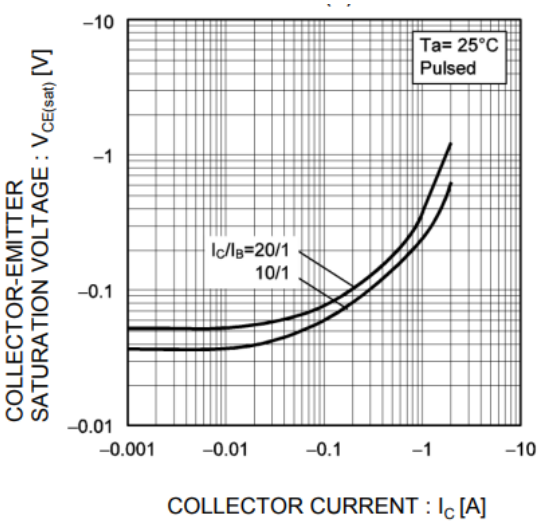
1. Surface mounted on FR-4 Board using 1 square inch pad size, 1oz copper.
2. Surface mounted on FR-4 Board using minimum pad size, 1oz copper.
3. Pulse width=300us, Duty Cycle<2%.

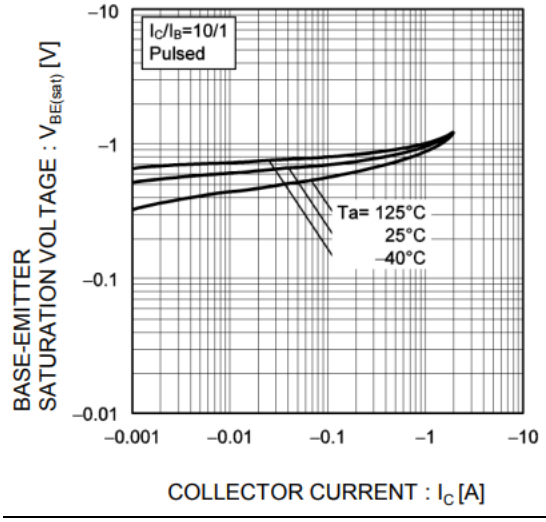
➢ Typical Performance Characteristics

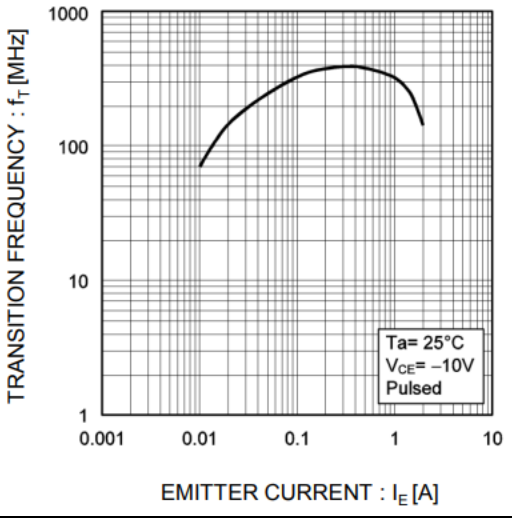




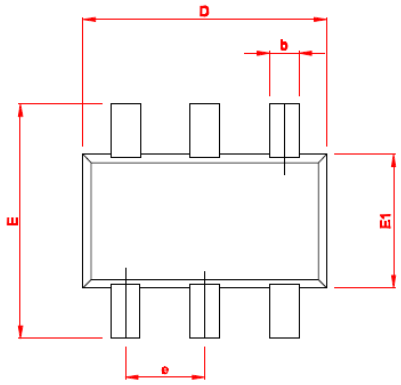


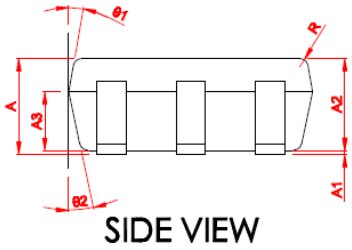






➢ Package Information





SYMBOL	MILLIMETER		
	MIN	NOM	MAX
A	1.06	1.15	1.24
* A1	0.01	0.05	0.09
* A2	1.05	1.10	1.15
A3	0.65	0.70	0.75
* b	0.30	0.35	0.45
* c	0.117	0.127	0.157
* D	2.87	2.92	2.97
* E	2.72	2.80	2.88
* E1	1.55	1.60	1.65
* e	0.90	0.95	1.00
* L	0.32	0.40	0.48
* L1	0.55	0.60	0.65
R	0.10 REF		
R1	0.12 REF		
* θ	0	--	8°
θ1	8°	10°	12°
θ2	10°	12°	14°

DISCLAIMER

AFSEMI RESERVES THE RIGHT TO MAKE CHANGES WITHOUT FURTHER NOTICE TO ANY PRODUCTS HEREIN TO IMPROVE RELIABILITY, FUNCTION OR DESIGN. AFSEMI DOES NOT ASSUME ANY LIABILITY ARISING OUT OF THE APPLICATION OR USE OF ANY PRODUCT OR CIRCUIT DESCRIBED HEREIN; NEITHER DOES IT CONVEY ANY LICIENCE UNDER ITS PATENT RIGHTS, NOR THE RIGHTS OF OTHERS.

THE GRAPHS PROVIDED IN THIS DOCUMENT ARE STATISTICAL SUMMARIES BASED ON A LIMITED NUMBER OF SAMPLES AND ARE PROVIDED FOR INFORMATIONAL PURPOSE ONLY. THE PERFORMANCE CHARACTERISTICS LISTED IN THEM ARE NOT TESTED OR GUARANTEED. IN SOME GRAPHS, THE DATA PRESENTED MAY BE OUTSIDE THE SPECIFIED OPERATING RANGE (E.G. OUTSIDE SPECIFIED POWER SUPPLY RANGE) AND THEREFORE OUTSIDE THE WARRANTED RANGE.

X-ON Electronics

Largest Supplier of Electrical and Electronic Components

Click to view similar products for Bipolar Transistors - BJT ***category:***

Click to view products by AF ***manufacturer:***

Other Similar products are found below :

619691C MCH4017-TL-H MMBT-2369-TR BC546/116 BC557/116 BSW67A NJVMJD148T4G NTE123AP-10 NTE153MCP NTE16 NTE195A NTE92 C4460 2N4401-A 2N6728 2SA1419T-TD-H 2SA2126-E 2SB1204S-TL-E 2SC2712S-GR,LF 2SC5488A-TL-H 2SD2150T100R SP000011176 2N2907A 2N3904-NS 2N5769 2SC2412KT146S 2SD1816S-TL-E CPH6501-TL-E MCH4021-TL-E MJE340 US6T6TR NJL0281DG 732314D CPH3121-TL-E CPH6021-TL-H 873787E IMZ2AT108 UMX21NTR MCH6102-TL-E FP204-TL-E NJL0302DG 2N3583 2SA2014-TD-E 2SC2812-5-TB-E 30A02MH-TL-E TN6717A NSV40301MZ4T1G NTE13 NTE26 NTE282