

High Frequency High Gain PNP Power BJT

- **Features**

PNP BJT			
VCE	VBE	Vcesat typ	Ic
-40v	-6v	-150mv	-3A

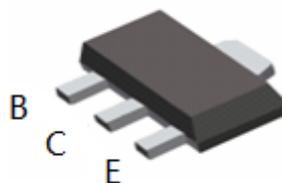
- **General Description**

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**

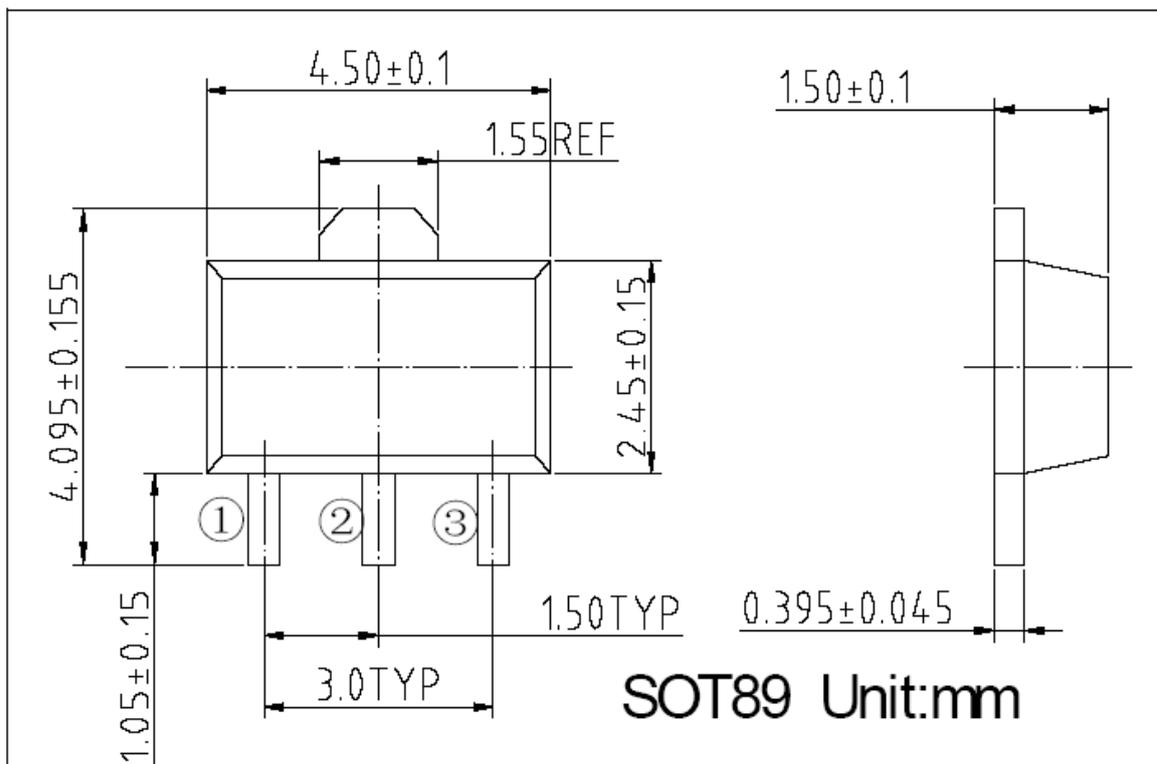
- battery powered circuits
- low in-line power dissipation circuits

- **Pin configuration**



Pin configuration(Top view)

- **Package Information**





SSCP005GS3

● **Absolute Maximum Ratings @ TA = 25°C unless otherwise specified**

Parameter	Symbol	P-channel	Unit
Collector-Base Voltage	V_{CBO}	-40	V
Collector-Emitter Voltage	V_{CEO}	-40	V
Emitter-Base Voltage	V_{EBO}	-6	V
Collector Current $T_A = 25^\circ\text{C}$ (Note 1)	I_C	-3	A
Collector Current $T_A = 70^\circ\text{C}$ (Note 2)		-2	
Pulse collector current(Note3)	I_{CM}	-6	A
Power Dissipation Derating above $T_A = 25^\circ\text{C}$ (Note 1)	P_d	3.0	W
Power Dissipation Derating above $T_A = 70^\circ\text{C}$ (Note 2)		1.5	
Operating and Storage Junction Temperature Range	T_J, T_{STG}	-55 to +150	°C

Note1. Surface mounted on FR-4 Board using 1 square inch pad size, 1oz copper.

Note2. Surface mounted on FR-4 board using minimum pad size, 1oz copper

Note3. Pulse width=300µs, Duty Cycle

● **Electrical Characteristics @ TA = 25°C unless otherwise specified**

Parameter ^(Note 4)	Symbol	Test Conditions	Min	Typ	Max	Unit
Collector-Base Breakdown Voltage	BV_{CBO}	$I_C=-50\mu\text{A}, I_B=0\text{mA}$	-40			V
Collector-Emitter Breakdown Voltage	BV_{CEO}	$I_C=-1\text{mA}, I_B=0\text{mA}$	-40			V
Emitter-Base Breakdown Voltage	BV_{EBO}	$I_E=-1\mu\text{A}, I_C=0\text{mA}$	-8			V
Collector cut off current	I_{CBO}	$V_{CB}=-20\text{V}, I_E=0\text{mA}$			1	µA
Emitter cut off current	I_{EBO}	$V_{EB}=-4\text{V}, I_C=0\text{mA}$			1	µA
DC Current Gain	HFE	$V_{CE}=-2\text{V}, I_C=-500\text{mA}$	100	200	350	
Collector-Emitter Saturation Voltage	V_{CESAT}	$I_C=-1.5\text{A}, I_B=-80\text{mA}$		-0.15	-0.2	V

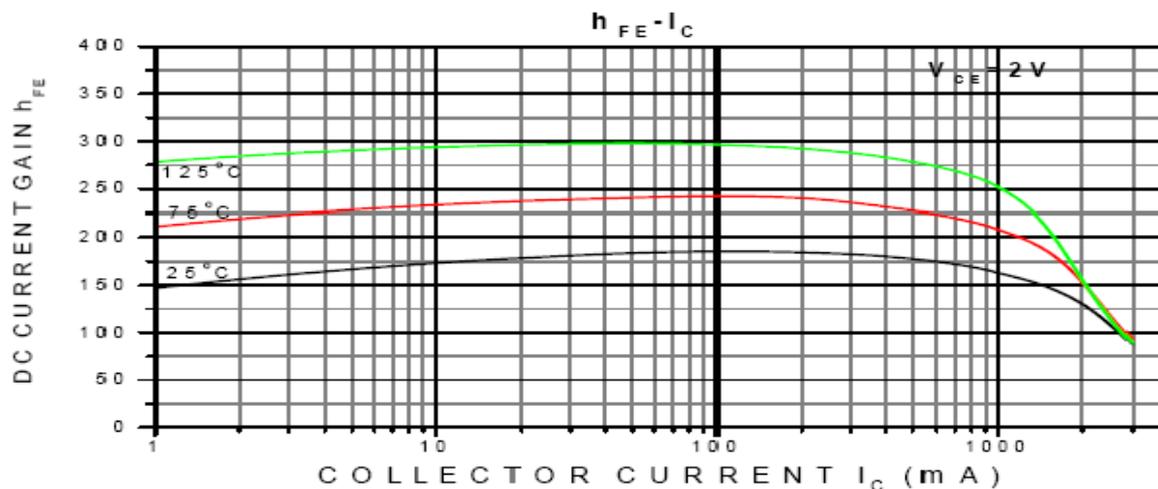
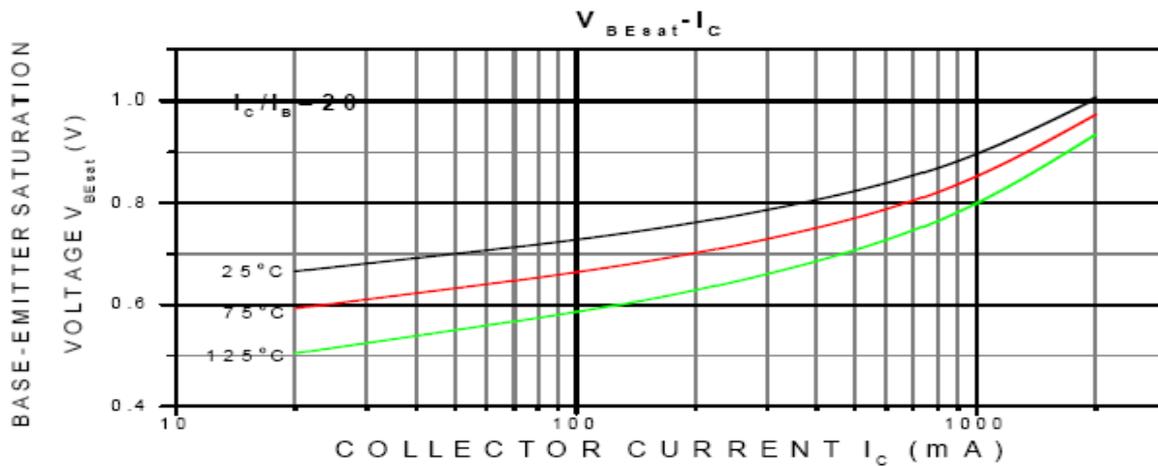
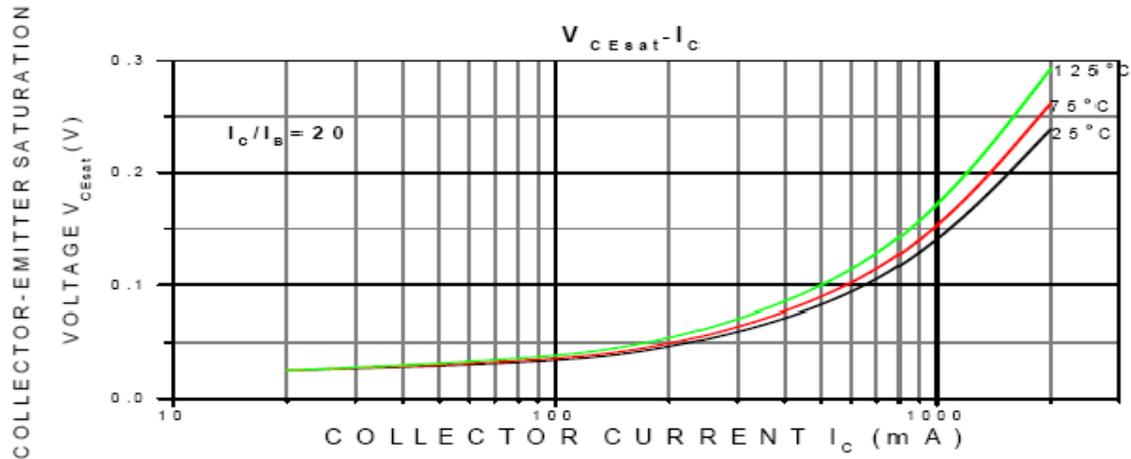
Note 4.

Surface Mounted on FR4 Board, $t < 10 \text{ sec.}$
Pulse Test: Pulse Width < 300µs, Duty Cycle < 2%



SSCP005GS3

Typical Performance Characteristics





SSCP005GS3

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 LICENCE 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.