SSCP006GN2

High Frequency High Gain PNP Power BJT

➢ Features

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

➢ Description

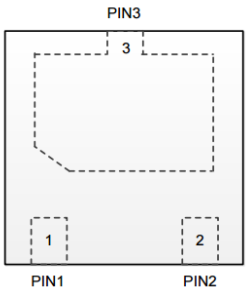
This device is produced with advanced high carrier density technology, which is especially used to minimize saturation voltage drop. This device particularly suits low voltage applications such as portable equipment, power management and other battery powered circuits, and low in-line power dissipation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

➢ Applications

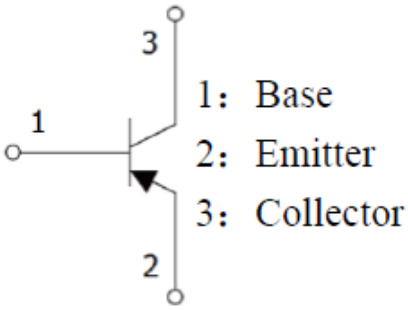
- Battery powered circuits
- Low in-line power dissipation circuits
- Power regulator

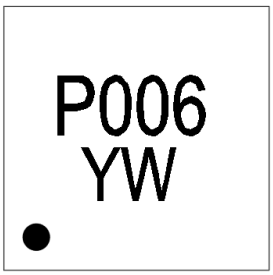
➢ Pin configuration

Top view



DFN2X2





Marking

➢ Ordering Information

Device	Package	Shipping
SSCP006GN2	DFN2X2	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	3.0	W
	Power Dissipation@Note2	1.5	
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	45	℃/W
$R_{\theta JA}$	Junction-to-Ambient Thermal Resistance@Note2	86	

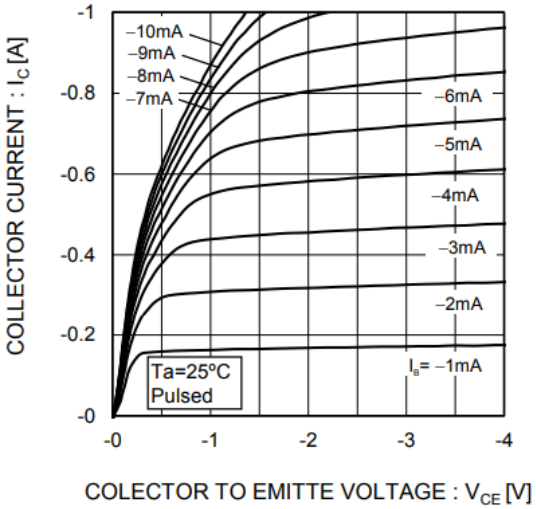
➢ **Electronics Characteristics**(T_A=25℃ unless otherwise specified)

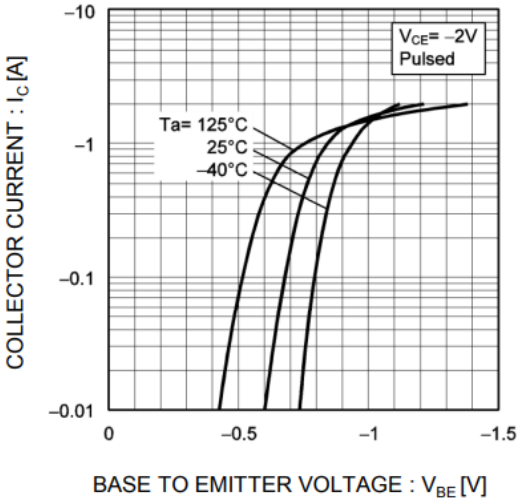
Symbol	Parameter	Test Conditions	Min	Typ.	Max	Unit
BVCBO	Collector-Base Breakdown Voltage	IC=-100uA IE=0	-40			V
BVCEO	Collector-Emitter Breakdown Voltage	IC=-1mA IB=0	-40			V
BVEBO	Emitter-Base Breakdown Voltage	IE=-100uA IC=0	-6			V
ICBO	Collector cut off current	VCB=-30V IE=0			-0.1	uA
IEBO	Emitter cut off current	VEB=-5V IC=0			-0.1	uA
HFE	DC Current Gain@Note3	VCE=-2V IC=-0.5A	100		400	
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

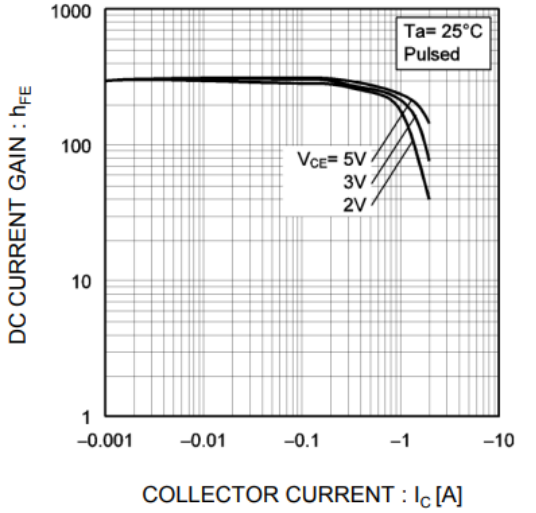
Notes:

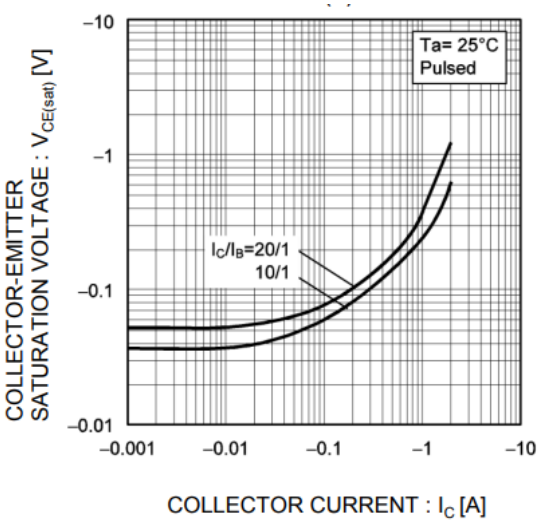
1. Surface mounted on FR-4 Board using 1 square inch pad size, 1oz copper.
2. Surface mounted on FR-4 Board using minimum pad size, 1oz copper.
3. Pulse width=300us, Duty Cycle<2%.

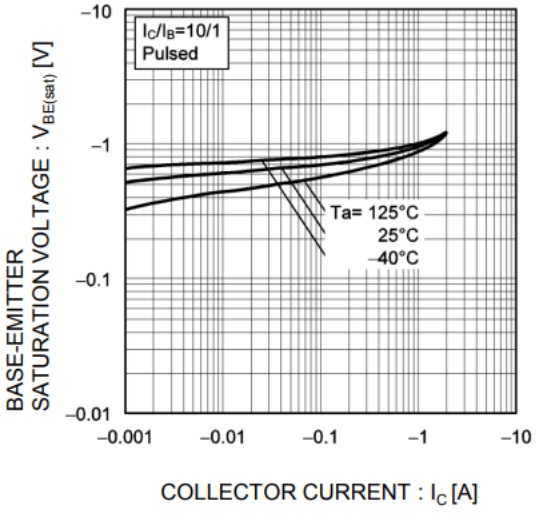
➢ Typical Performance Characteristics

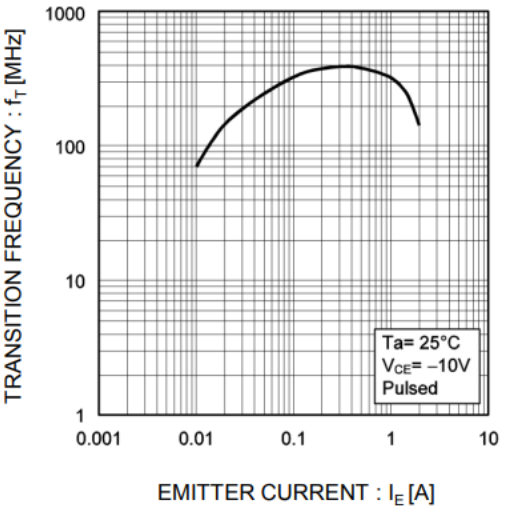




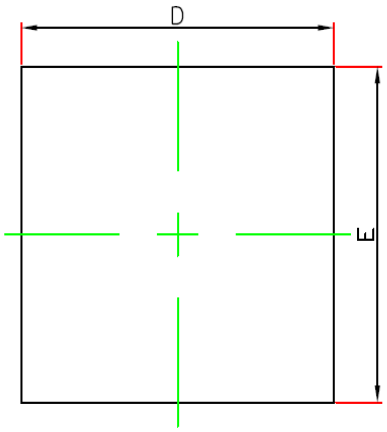




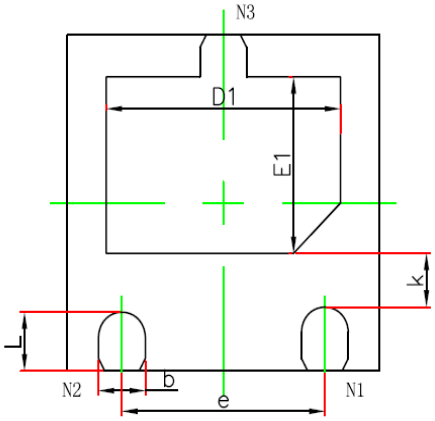




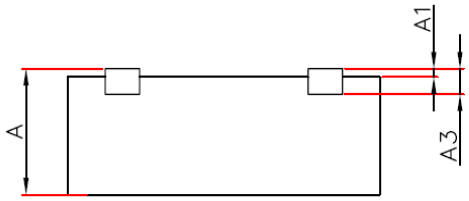
➢ Package Information



TOP VIEW



BOTTOM VIEW



SIDE VIEW

Symbol	Dimensions In Millimeters	
	Min.	Max.
A	0.550	0.650
A1	0.000	0.050
A3	0.152REF.	
D	1.924	2.076
E	1.924	2.076
D1	1.400	1.600
E1	0.950	1.150
K	0.220MIN.	
b	0.250	0.350
e	1.30(BSC)	
L	0.330	0.430

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