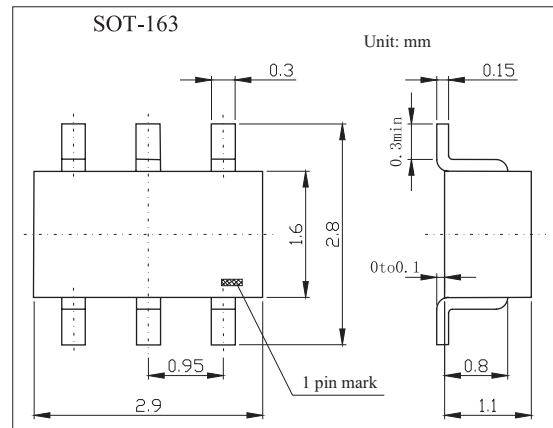
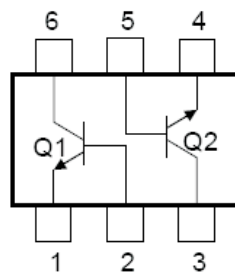


## NPN Silicon Epitaxial Transistor

### HN1C07F

#### ■ Features

- Excellent Current Gain( $h_{FE}$ )linearity  
:  $h_{FE}=25(\text{min})$  at  $V_{CE}=6V, I_C=400\text{mA}$



1 Emitter1    4 Emitter2  
2 Base1      5 Base2  
3 Collector2   6 Collector1

#### ■ Absolute Maximum Ratings $T_a = 25^\circ\text{C}$

Parameter	Symbol	Rating	Unit
Collector-base voltage	$V_{CB0}$	50	V
Collector-emitter voltage	$V_{CE0}$	50	V
Emitter-base voltage	$V_{EB0}$	5	V
Collector current	$I_C$	500	mA
Base current	$I_B$	50	mA
power dissipation	$P_D$	300	mW
Junction temperature	$T_j$	150	$^\circ\text{C}$
Storage temperature	$T_{stg}$	-55 to +150	$^\circ\text{C}$

#### ■ Electrical Characteristics $T_a = 25^\circ\text{C}$

Parameter	Symbol	Testconditions	Min	Typ	Max	Unit
Collector cutoff current	$I_{CBO}$	$V_{CB} = 50V, I_E = 0$			0.1	$\mu\text{A}$
Emitter cutoff current	$I_{EBO}$	$V_{EB} = 5V, I_C = 0$			0.1	$\mu\text{A}$
DC current gain *	$h_{FE}$	$V_{CE} = 1V, I_C = 100\text{mA}$	70		240	
		$V_{CE} = 6V, I_C = 400\text{mA}$	25			
Collector-emitter saturation voltage *	$V_{CE(sat)}$	$I_C = 100\text{mA}, I_B = 10\text{mA}$		0.1	0.25	V
Base emitter voltage *	$V_{BE}$	$V_{CE} = 1V, I_C = 100\text{mA}$		0.8	1.0	V
Output capacitance	$C_{ob}$	$V_{CE} = 6V, I_E = 0, f = 1\text{MHz}$		7		pF
Transition frequency	$f_T$	$V_{CE} = 6V, I_E = 20\text{mA}$		300		MHz

\*.  $PW \leq 350\mu\text{s}, \text{duty cycle} \leq 2\%$