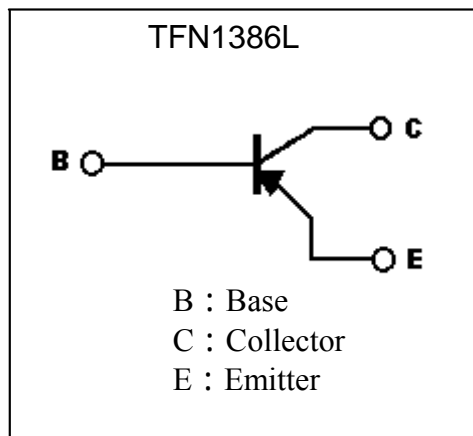


# TFN1386L

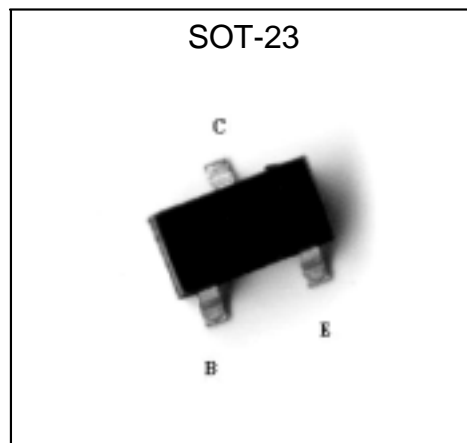
## Features

- Low  $V_{CE(sat)}$ ,  $V_{CE(sat)} = -0.6$  V (typical), at  $I_C / I_B = -4A / -0.1A$
- Excellent DC current gain characteristics
- Complementary to TFN2098L

## Symbol



## Outline



## Absolute Maximum Ratings (Ta=25°C)

Parameter	Symbol	Limits	Unit
Collector-Base Voltage	$V_{CBO}$	-20	V
Collector-Emitter Voltage	$V_{CEO}$	-15	V
Emitter-Base Voltage	$V_{EBO}$	-6	V
Collector Current	$I_C(DC)$	-5	A
	$I_C(Pulse)$	-10 (Note )	
Power Dissipation	PD	225	mW
Thermal Resistance, Junction to Ambient	$R_{\theta JA}$	556	°C/W
Junction Temperature	$T_j$	150	°C
Storage Temperature	$T_{stg}$	-55~+150	°C

Note : 1. Single Pulse  $P_w = 350\mu s$ , Duty = 2%.



**Characteristics (Ta=25°C)**

Symbol	Min.	Typ.	Max.	Unit	Test Conditions
$BV_{CBO}$	-20	-	-	V	$I_C=-50\mu A, I_E=0$
$BV_{CEO}$	-15	-	-	V	$I_C=-1mA, I_B=0$
$BV_{EBO}$	-6	-	-	V	$I_E=-50\mu A, I_C=0$
$I_{CBO}$	-	-	-0.5	$\mu A$	$V_{CB}=-15V, I_E=0$
$I_{EBO}$	-	-	-0.5	$\mu A$	$V_{EB}=-5V, I_C=0$
$*V_{CE(sat)}$	-	-	-1.0	V	$I_C=-4A, I_B=-0.1A$
$*h_{FE}$	120	-	560	-	$V_{CE}=-2V, I_C=-0.5A$
$f_T$	-	120	-	MHz	$V_{CE}=-6V, I_C=-50mA, f=30MHz$
Cob	-	60	-	pF	$V_{CB}=-20V, f=1MHz$

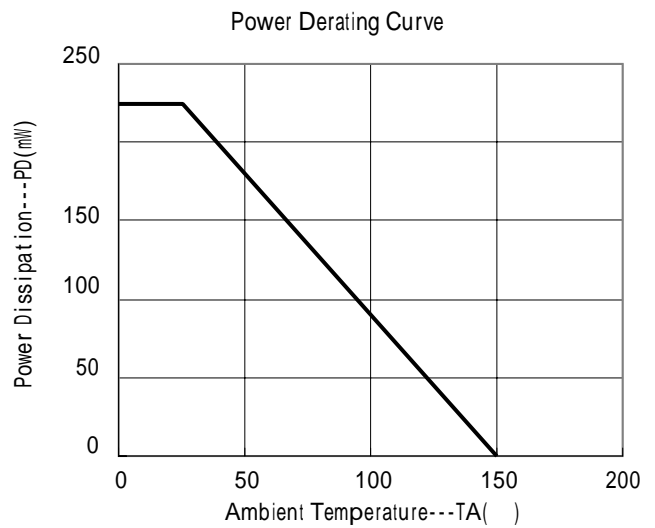
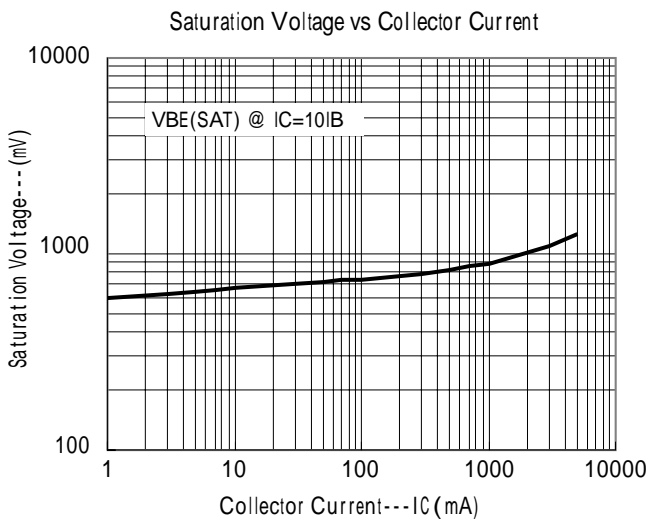
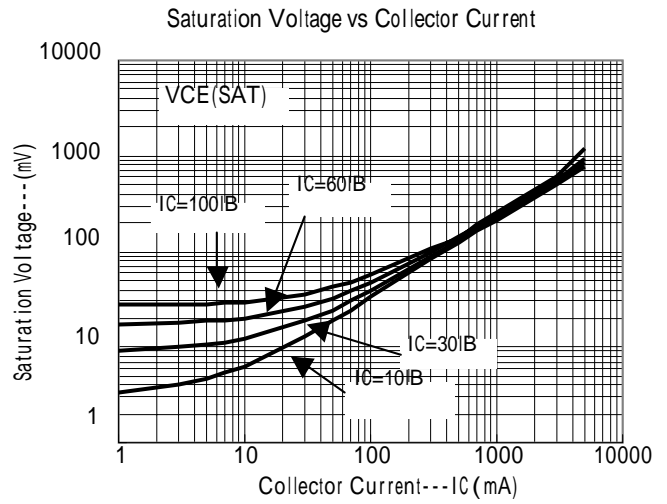
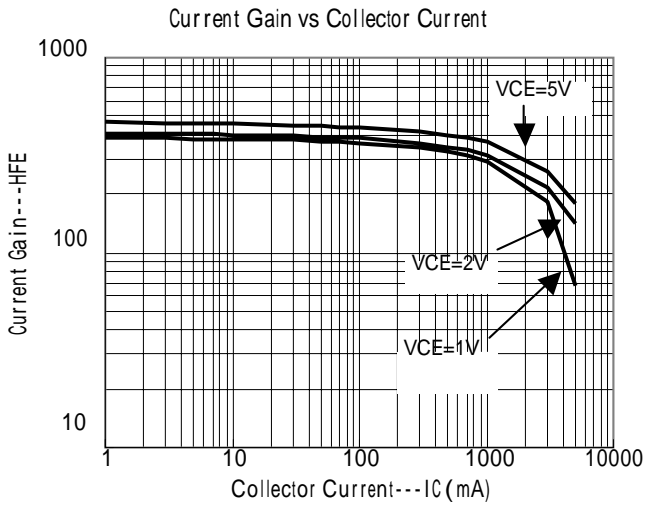
\*Pulse Test : Pulse Width  $\leq 380\mu s$ , Duty Cycles  $\leq 2\%$

**Classification Of hFE**

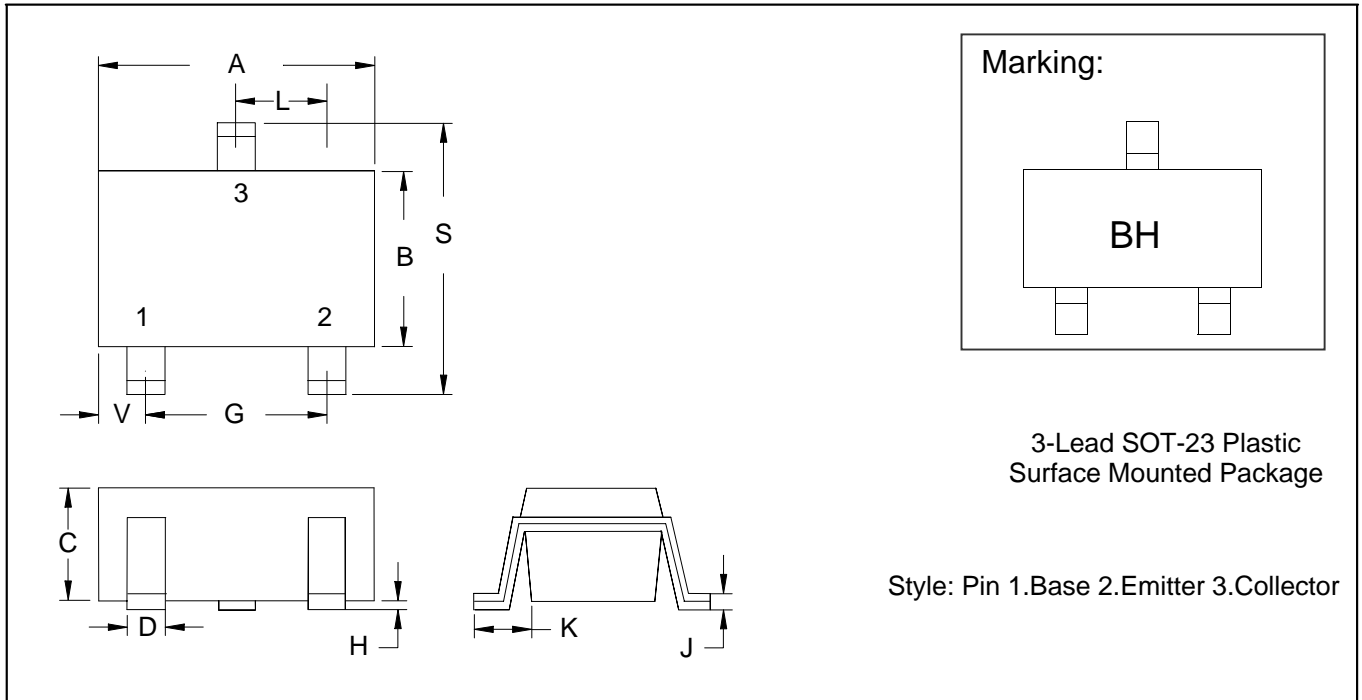
Rank	Q	R	S
Range	120~270	180~390	270~560



### Characteristic Curves



## SOT-23 Dimension



\*: Typical

DIM	Inches		Millimeters		DIM	Inches		Millimeters	
	Min.	Max.	Min.	Max.		Min.	Max.	Min.	Max.
A	0.1102	0.1204	2.80	3.04	J	0.0034	0.0070	0.085	0.177
B	0.0472	0.0630	1.20	1.60	K	0.0128	0.0266	0.32	0.67
C	0.0335	0.0512	0.89	1.30	L	0.0335	0.0453	0.85	1.15
D	0.0118	0.0197	0.30	0.50	S	0.0830	0.1083	2.10	2.75
G	0.0669	0.0910	1.70	2.30	V	0.0098	0.0256	0.25	0.65
H	0.0005	0.0040	0.013	0.10					

Notes: 1.Controlling dimension: millimeters.

2.Maximum lead thickness includes lead finish thickness, and minimum lead thickness is the minimum thickness of base material.

3.If there is any question with packing specification or packing method, please contact your local Tin Far sales office.

**Material:**

- Lead: 42 Alloy ; solder plating
- Mold Compound: Epoxy resin family, flammability solid burning class: UL94V-0

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