



Small Signal Transistor

-160V PNP
SOT23

Features

- Collector Current : $I_c = -600\text{mA}$
- Power Dissipation of 300mW
- High Stability and High Reliability

Mechanical Data

- Case: SOT23 Package
- Case Material: "Green" Molding Compound UL Flammability Classification Rating 94V-0
- Halogen Free

Note: Products with logo  or  are made by HY Electronic (Cayman) Limited.

Ordering Information

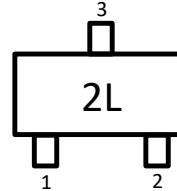
- Package :SOT23
- Reel Size :7 (inches)
- Quantity Per Reel :3,000 pcs
- Quantity One Box :45,000 pcs
- Quantity One Carton :180,000 pcs

Package Outline



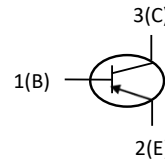
SOT23 Top View

Marking Information



"2L" = Product Type Marking Code

Device Schematic & PIN Configuration



Pin Assignment	
1	Base
2	Emitter
3	Collector

Maximum Ratings (@TA = +25°C, unless otherwise specified.)

Parameter	Symbol	Value	Unit
Collector-Base Voltage	V_{CB0}	-160	V
Collector-Emitter Voltage	V_{CE0}	-150	
Emitter-Base Voltage	V_{EB0}	-5	
Collector Current-Continuous	I_c	-600	mA
Collector Power Dissipation	P_c	300	mW
Thermal Resistance from Junction to Ambient	$R_{\theta JA}$	416	°C/W
Junction Temperature	T_j	150	°C
Storage Temperature Range	T_{STG}	-55 to +150	°C

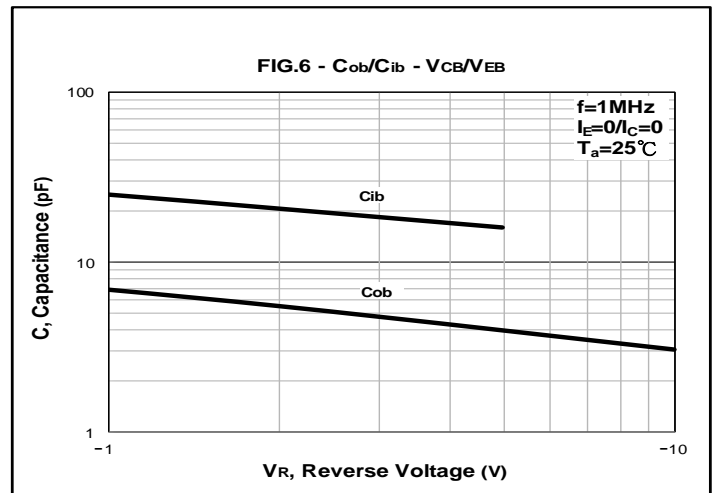
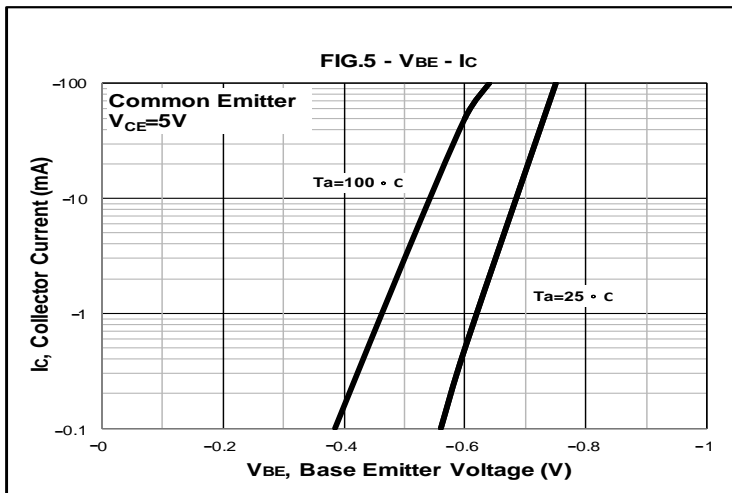
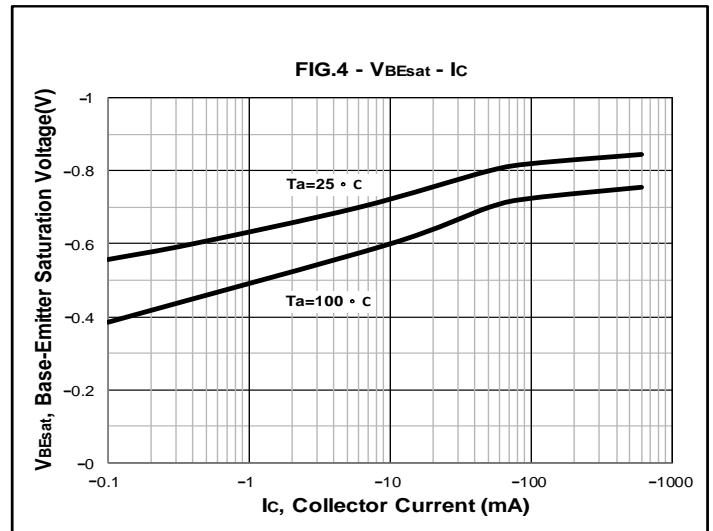
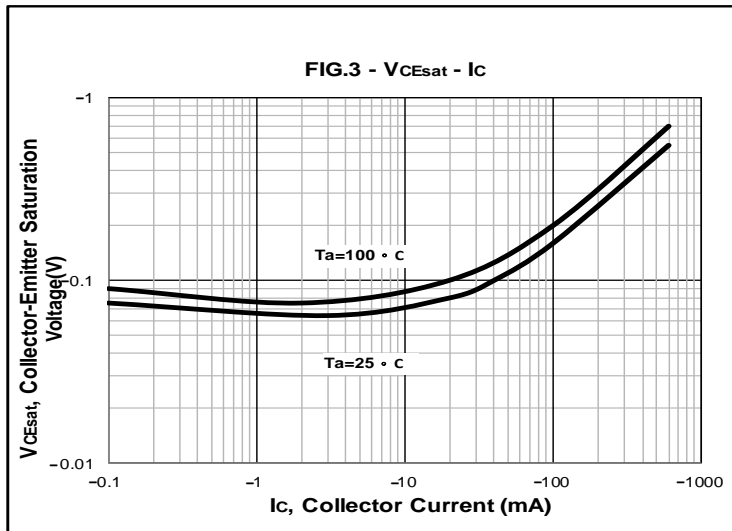
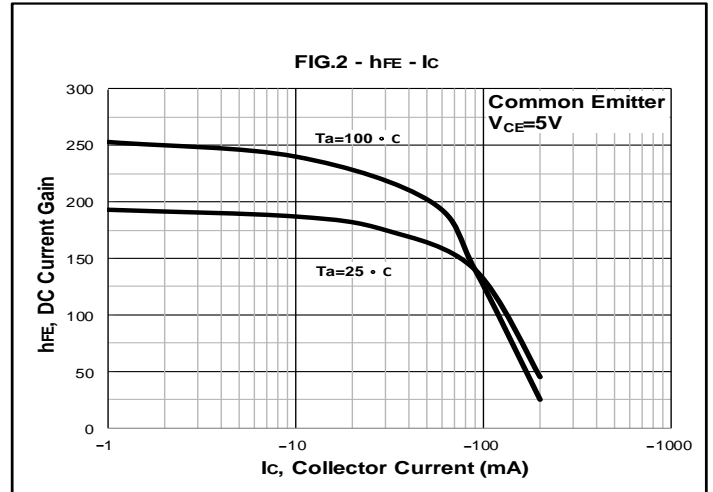
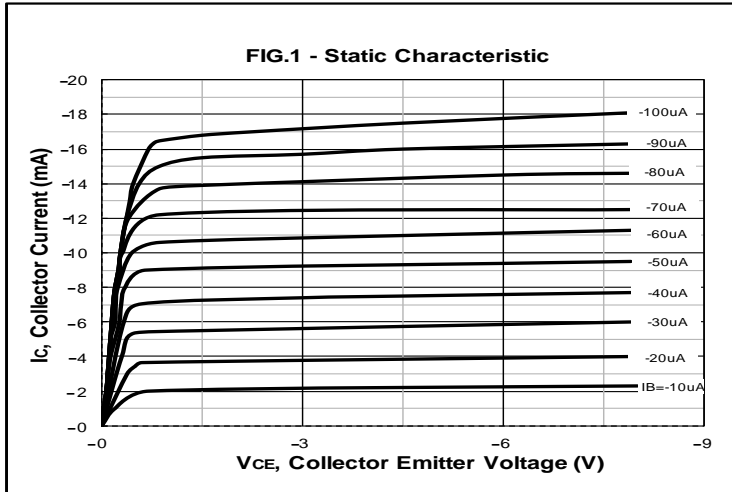
Electrical Characteristics(@TA = +25°C, unless otherwise specified.)

Parameter	Test Conditions	Symbol	Min	Max	Unit
Collector-Base Breakdown Voltage	$I_c = -100\mu\text{A}, I_E = 0$	$V_{(BR)CB0}$	-160	-	V
Collector-Emitter Breakdown Voltage	$I_c = -1\text{mA}, I_B = 0$	$V_{(BR)CE0^*}$	-150	-	
Emitter-Base Breakdown Voltage	$I_E = -10\mu\text{A}, I_c = 0$	$V_{(BR)EB0}$	-5	-	
Collector Cut-Off Current	$V_{CB} = -120\text{V}, I_E = 0$	I_{cBO}	-	-100	nA
Emitter Cut-Off Current	$V_{EB} = -4\text{V}, I_c = 0$	I_{eBO}	-	-100	nA
DC Current Gain	$V_{CE} = -5\text{V}, I_c = -1\text{mA}$	$h_{FE(1)^*}$	80	-	-
	$V_{CE} = -5\text{V}, I_c = -10\text{mA}$	$h_{FE(2)^*}$	100	300	
	$V_{CE} = -5\text{V}, I_c = -50\text{mA}$	$h_{FE(3)^*}$	30	-	
Collector-Emitter Saturation Voltage	$I_c = -10\text{mA}, I_B = -1\text{mA}$	$V_{CE(sat)1^*}$	-	-0.2	V
	$I_c = -50\text{mA}, I_B = -5\text{mA}$	$V_{CE(sat)2^*}$	-	-0.5	V
Base-Emitter Saturation Voltage	$I_c = -10\text{mA}, I_B = -1\text{mA}$	$V_{BE(sat)1^*}$	-	-1	V
	$I_c = -50\text{mA}, I_B = -5\text{mA}$	$V_{BE(sat)2^*}$	-	-1	V
Transition Frequency	$V_{CE} = -5\text{V}, I_c = 10\text{mA}, F = 30\text{MHz}$	f_T	100	-	MHz

Note : Pulse test : pulse width $\leq 300\mu\text{s}$, duty cycle $\leq 2.0\%$

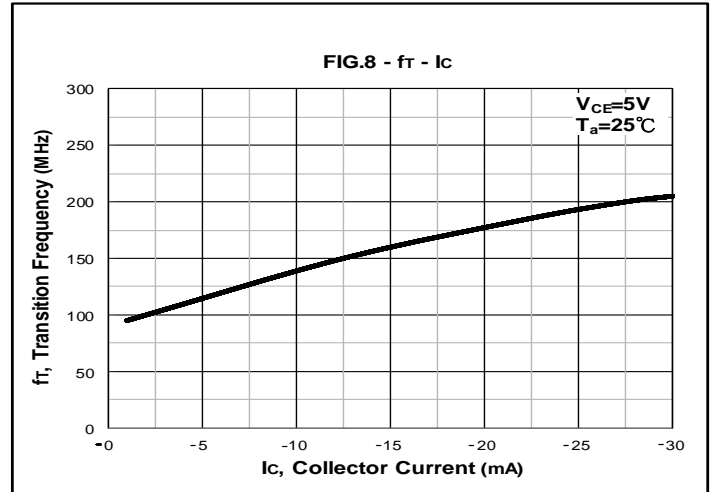
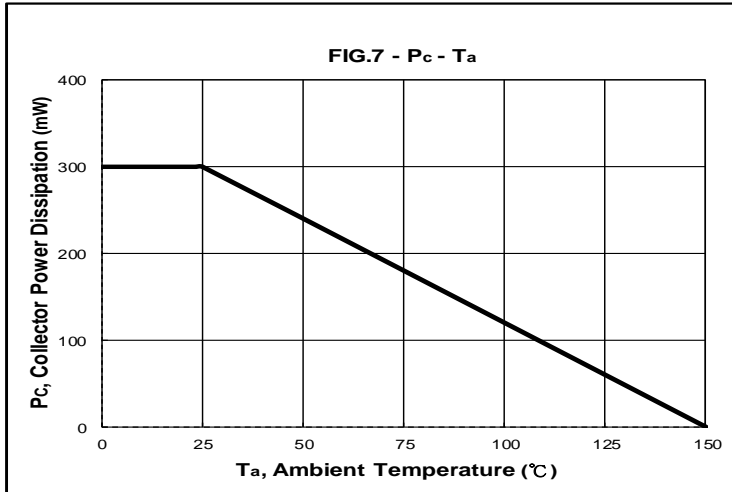


Rating and Characteristic Curves



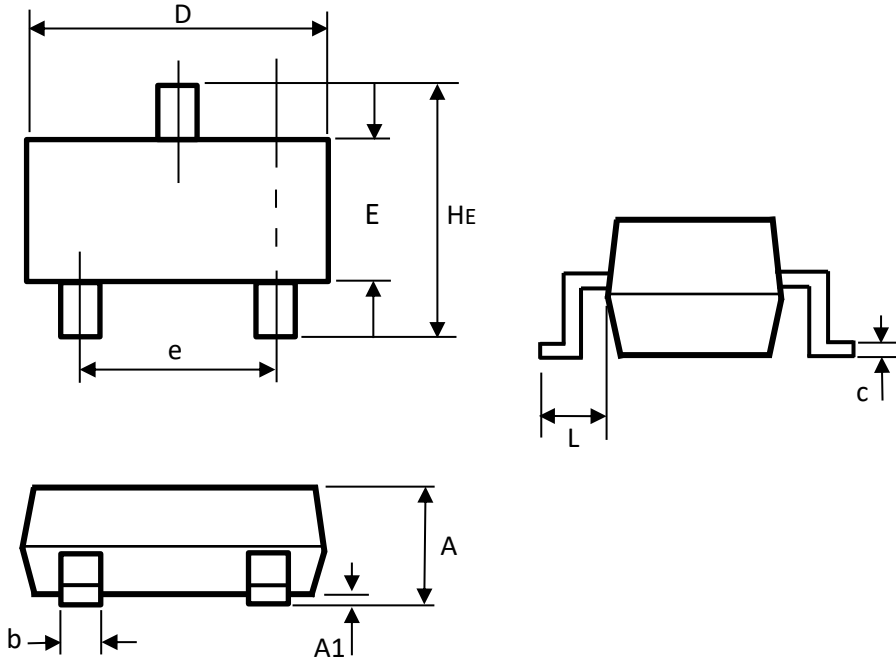


Rating and Characteristic Curves



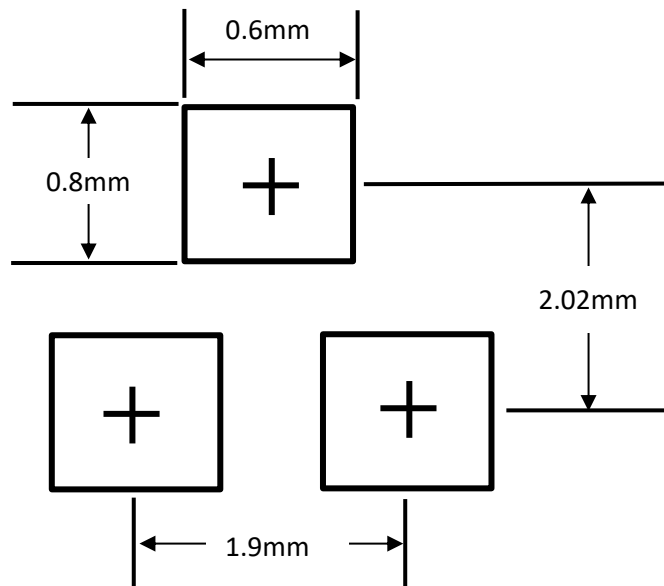


Package Outline Dimensions



SOT23 Package		
Dim	Min	Max
A	0.90	1.15
A1	0.00	0.10
b	0.30	0.50
c	0.08	0.15
D	2.80	3.00
E	1.20	1.40
e	1.80	2.00
L	0.55 REF	
HE	2.25	2.55
All Dimensions in mm		

Suggested Soldering Pad Layout



Note:

- 1.The pad layout is for reference purposes only.
- 2.General tolerance $\pm 0.05\text{mm}$



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