

<p>PNP型 小功率 贴片三极管 PNP High Voltage Transistor SMD</p>	<p>5401 PNP, BEC General Purpose Transistors 对应其他工业型号</p>
<ul style="list-style-type: none"> <li>■ Complementary to 5401</li> <li>■ Transistor Polarity: PNP</li> <li>■ Transistor pinout: BEC</li> <li>■ SOT-23 Package</li> <li>■ Marking Code: 2L</li> <li>■ hFE: 100~200, 200~300</li> <li>■ Ideal for Medium Power Amplification and Switching</li> </ul>	

<p>Inner circuit</p> <p>SOT-23 内部结构</p>	<p>5401</p> <p>1. Base 2. Emitter 3. Collector</p> <p>SOT-23 管脚排列</p>	<p>元件标识 (打印)</p> <p>DEVICE MARKING: 2L</p>
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■ ABSOLUTE MAXIMUM RATINGS ( $T_A=25^\circ\text{C}$ , unless otherwise specified)

PARAMETER	SYMBOL	RATINGS	UNIT
Collector -Base Voltage	$V_{CB0}$	-160	V
Collector -Emitter Voltage	$V_{CE0}$	-150	V
Emitter -Base Voltage	$V_{EB0}$	-5	V
DC Collector Current	$I_c$	-600	mA
Power Dissipation	$P_D$	350	mW
Junction Temperature	$T_J$	+150	$^\circ\text{C}$
Storage Temperature	$T_{STG}$	-55 ~ +150	$^\circ\text{C}$

Note: Absolute maximum ratings are those values beyond which the device could be permanently damaged.  
Absolute maximum ratings are stress ratings only and functional device operation is not implied.

■ ELECTRICAL CHARACTERISTICS ( $T_A=25^\circ\text{C}$ , unless otherwise specified)

PARAMETER	SYMBOL	TEST CONDITIONS	MIN	TYP	MAX	UNIT
Collector-Base Breakdown Voltage	$BV_{CBO}$	$I_C=-100\mu\text{A}$ , $I_E=0$	-160			V
Collector-Emitter Breakdown Voltage	$BV_{CEO}$	$I_C=-1\text{mA}$ , $I_B=0$	-150			V
Emitter-Base Breakdown Voltage	$BV_{EBO}$	$I_E=-10\mu\text{A}$ , $I_C=0$	-5			V
Collector Cut-off Current	$I_{CBO}$	$V_{CB}=-120\text{V}$ , $I_E=0$			-50	nA
Emitter Cut-off Current	$I_{EBO}$	$V_{BE}=-3\text{V}$ , $I_C=0$			-50	nA
DC Current Gain(Note)	$h_{FE}$	$V_{CE}=-5\text{V}$ , $I_C=-1\text{mA}$	80			
		$V_{CE}=-5\text{V}$ , $I_C=-10\text{mA}$	80	160	400	
		$V_{CE}=-5\text{V}$ , $I_C=-50\text{mA}$	80			
Collector-Emitter Saturation Voltage	$V_{CE(SAT)}$	$I_C=-10\text{mA}$ , $I_B=-1\text{mA}$			-0.2	V
		$I_C=-50\text{mA}$ , $I_B=-5\text{mA}$			-0.5	
Base-Emitter Saturation Voltage	$V_{BE(SAT)}$	$I_C=-10\text{mA}$ , $I_B=-1\text{mA}$			-1	V
		$I_C=-50\text{mA}$ , $I_B=-5\text{mA}$			-1	
Current Gain Bandwidth Product	$f_T$	$V_{CE}=-10\text{V}$ , $I_C=-10\text{mA}$ , $f=100\text{MHz}$	100		300	MHz
Output Capacitance	$C_{OB}$	$V_{CB}=-10\text{V}$ , $I_E=0$ , $f=1\text{MHz}$			6.0	pF
Noise Figure	NF	$I_C=-0.25\text{mA}$ , $V_{CE}=-5\text{V}$ $R_S=1\text{k}\Omega$ , $f=10\text{Hz} \sim 15.7\text{kHz}$			8	dB

Note: Pulse test:  $P^W < 300\mu\text{s}$ , Duty Cycle  $< 2\%$

■ TYPICAL CHARACTERISTICS

Fig.1 Collector Output Capacitance

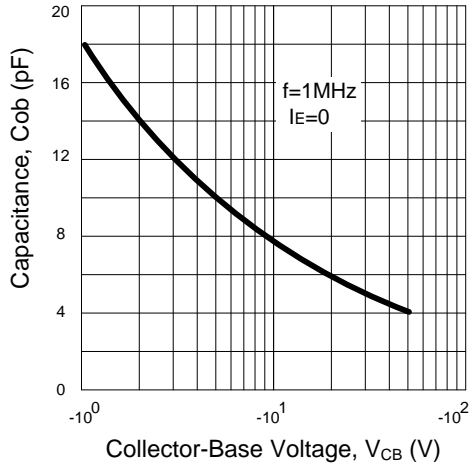


Fig.2 DC Current Gain

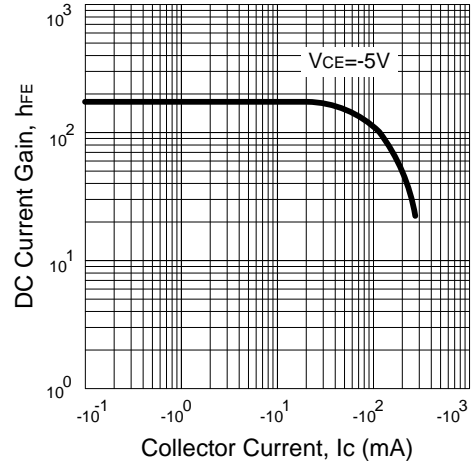


Fig.3 Base-Emitter on Voltage

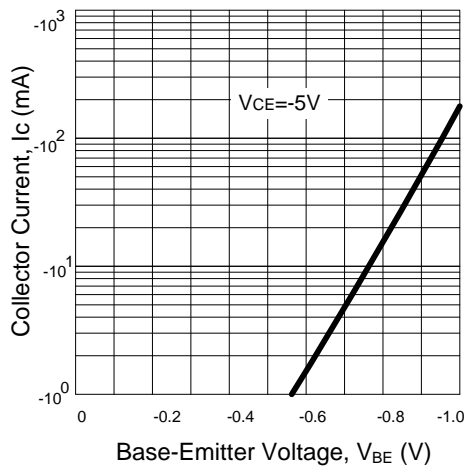


Fig.4 Saturation Voltage

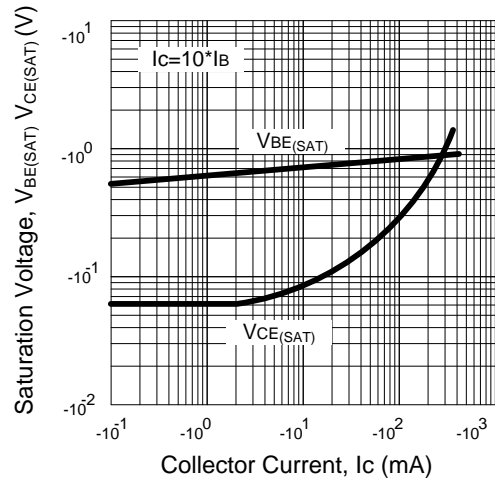
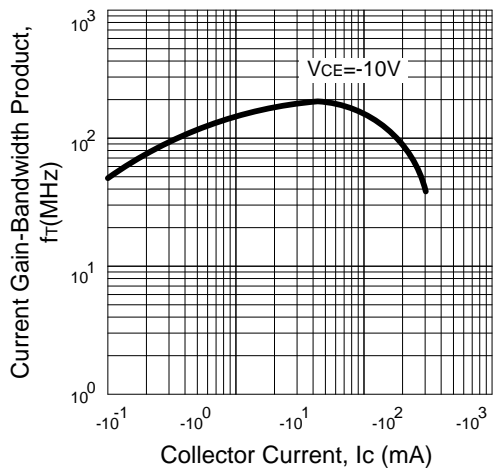
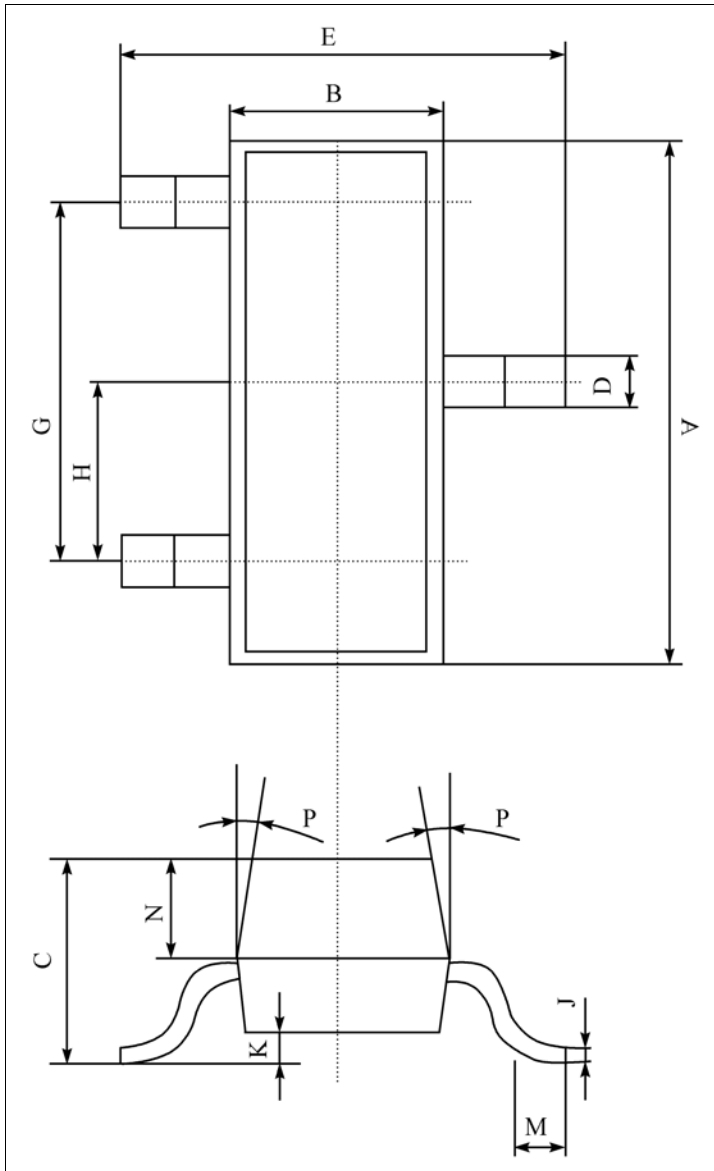


Fig.5 Current Gain-Bandwidth Product



■ DIMENSION 外形封装尺寸数据

单位 (UNIT) : mm

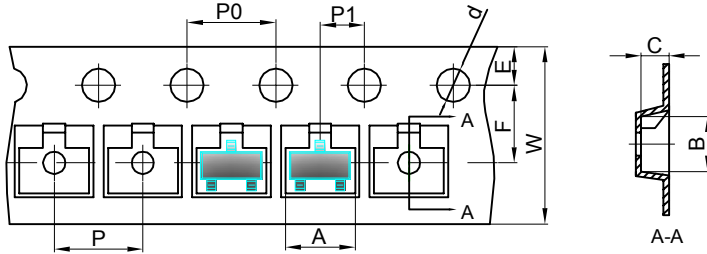


序号	数值及公差
A	2.90±0.10
B	1.30±0.10
C	1.00±0.10
D	0.40±0.10
E	2.40±0.20
G	1.90±0.10
H	0.95±0.05
J	0.13±0.05
K	0.00-0.10
M	≥0.20
N	0.60±0.10
P	7±2°

**Packing**  
 SOT-23 包装规格  
 SMD片式表面贴封装  
 包装方式: 载带卷盘包装  
 Tape & Reel, 3Kpcs/Reel  
 每卷数量3000只 (3Kpcs/Reel)  
 每盒数量45000只 (45Kpcs/BOX)  
 每箱数量180000只 (180Kpcs/Cartons)

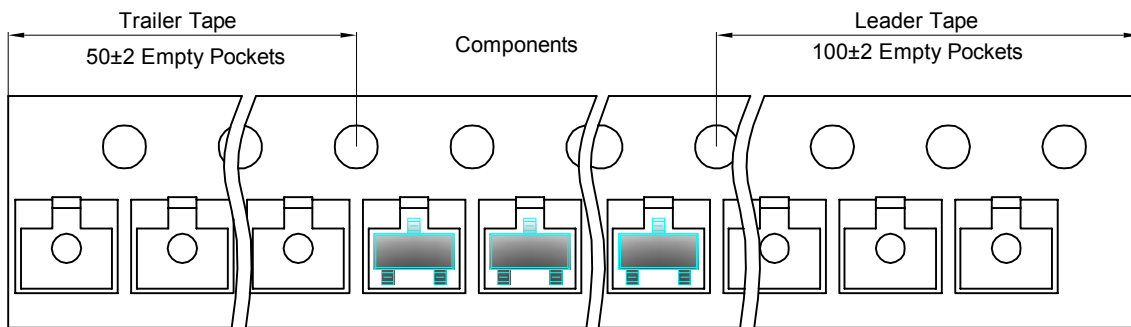
## SOT-23 Tape and reel

SOT-23 Embossed Carrier Tape

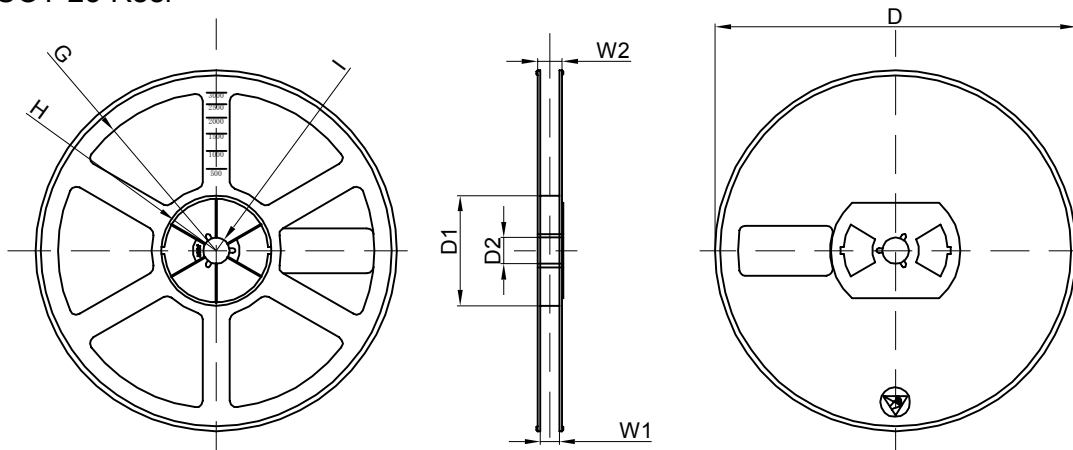


Dimensions are in millimeter										
Pkg type	A	B	C	d	E	F	P0	P	P1	W
SOT-23	3.15	2.77	1.22	Ø1.50	1.75	3.50	4.00	4.00	2.00	8.00

## SOT-23 Tape Leader and Trailer



## SOT-23 Reel



Dimensions are in millimeter								
Reel Option	D	D1	D2	G	H	I	W1	W2
7" Dia	Ø178.00	54.40	13.00	R78.00	R25.60	R6.50	9.50	12.30

REEL	Reel Size	Box	Box Size(mm)	Carton	Carton Size(mm)	G.W.(kg)
3000 pcs	7 inch	30,000 pcs	203×203×195	120,000 pcs	438×438×220	