

## 2SB861 TRANSISTOR (PNP)

### FEATURES

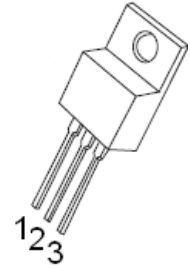
- Low Frequency Power Amplifier Color TV Vertical Deflection Output

### MAXIMUM RATINGS ( $T_a=25^{\circ}\text{C}$ unless otherwise noted)

Symbol	Parameter	Value	Unit
$V_{CBO}$	Collector-Base Voltage	-200	V
$V_{CEO}$	Collector-Emitter Voltage	-150	V
$V_{EBO}$	Emitter-Base Voltage	-6	V
$I_C$	Collector Current	-2	A
$P_C$	Collector Power Dissipation	1.8	W
$R_{\theta JA}$	Thermal Resistance From Junction To Ambient	69	$^{\circ}\text{C/W}$
$T_J, T_{stg}$	Operation Junction and Storage Temperature Range	-55~+150	$^{\circ}\text{C}$

### TO-220-3L

1. BASE
2. COLLECTOR
3. EMITTER



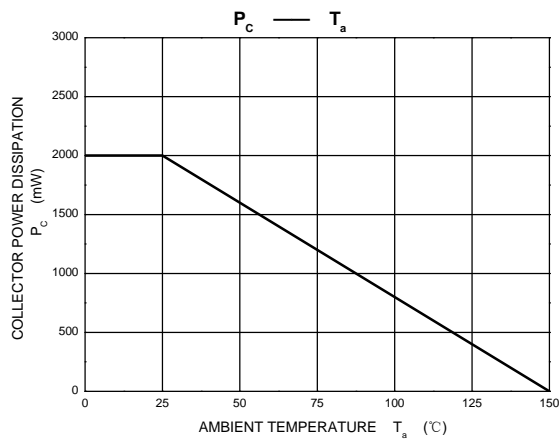
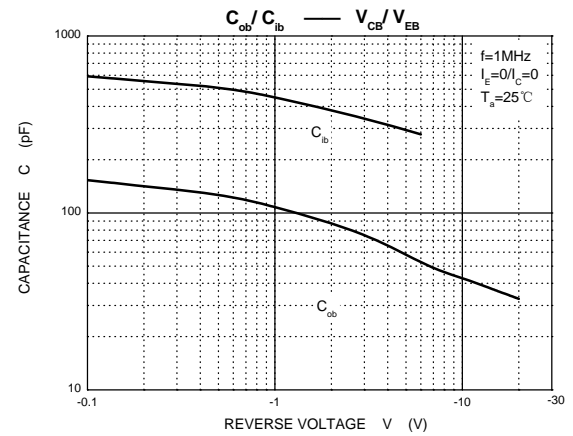
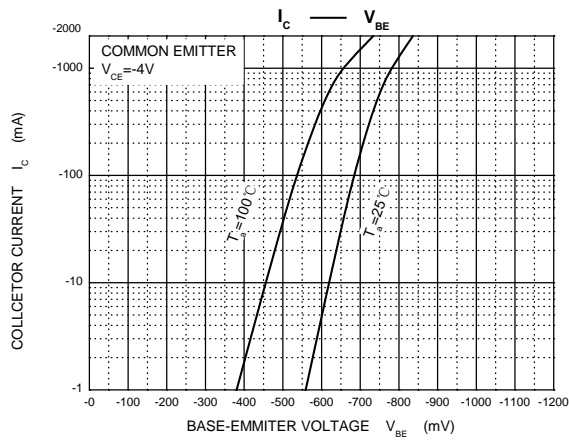
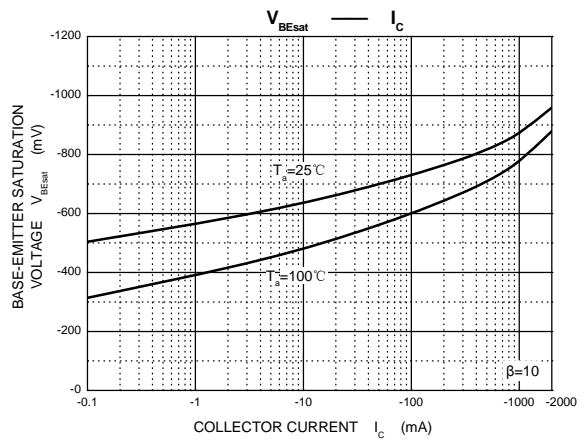
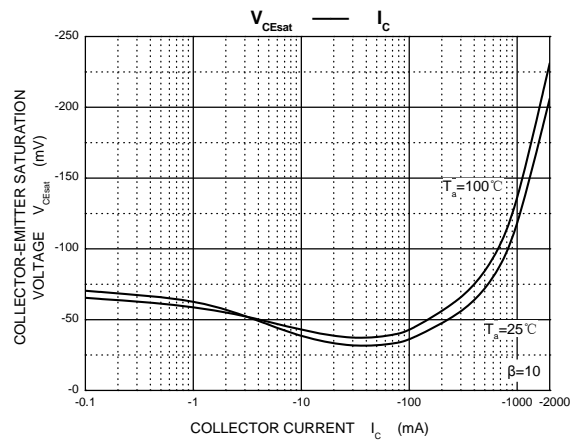
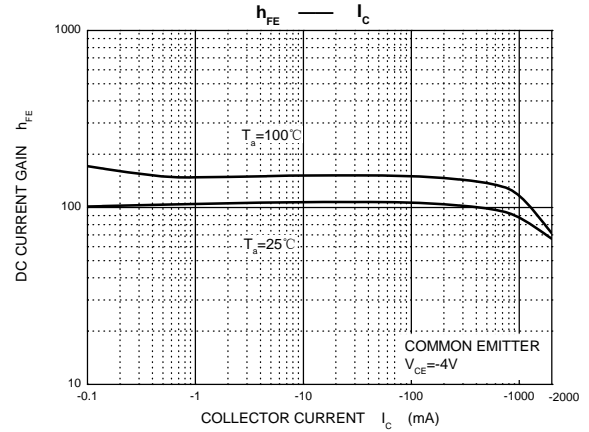
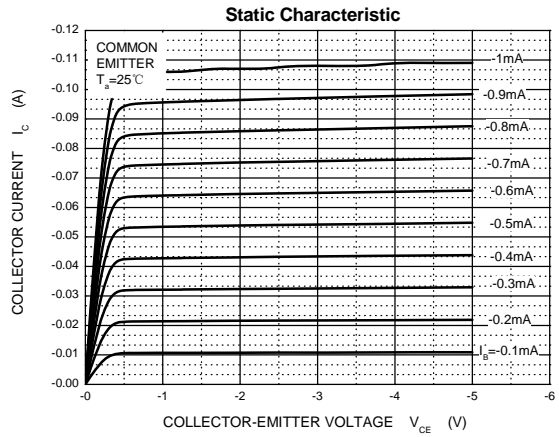
### ELECTRICAL CHARACTERISTICS ( $T_a=25^{\circ}\text{C}$ unless otherwise specified)

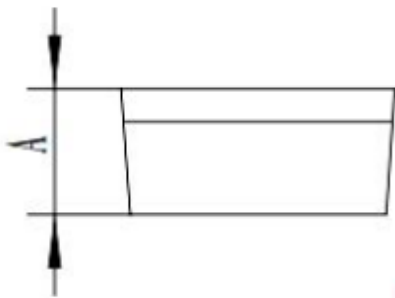
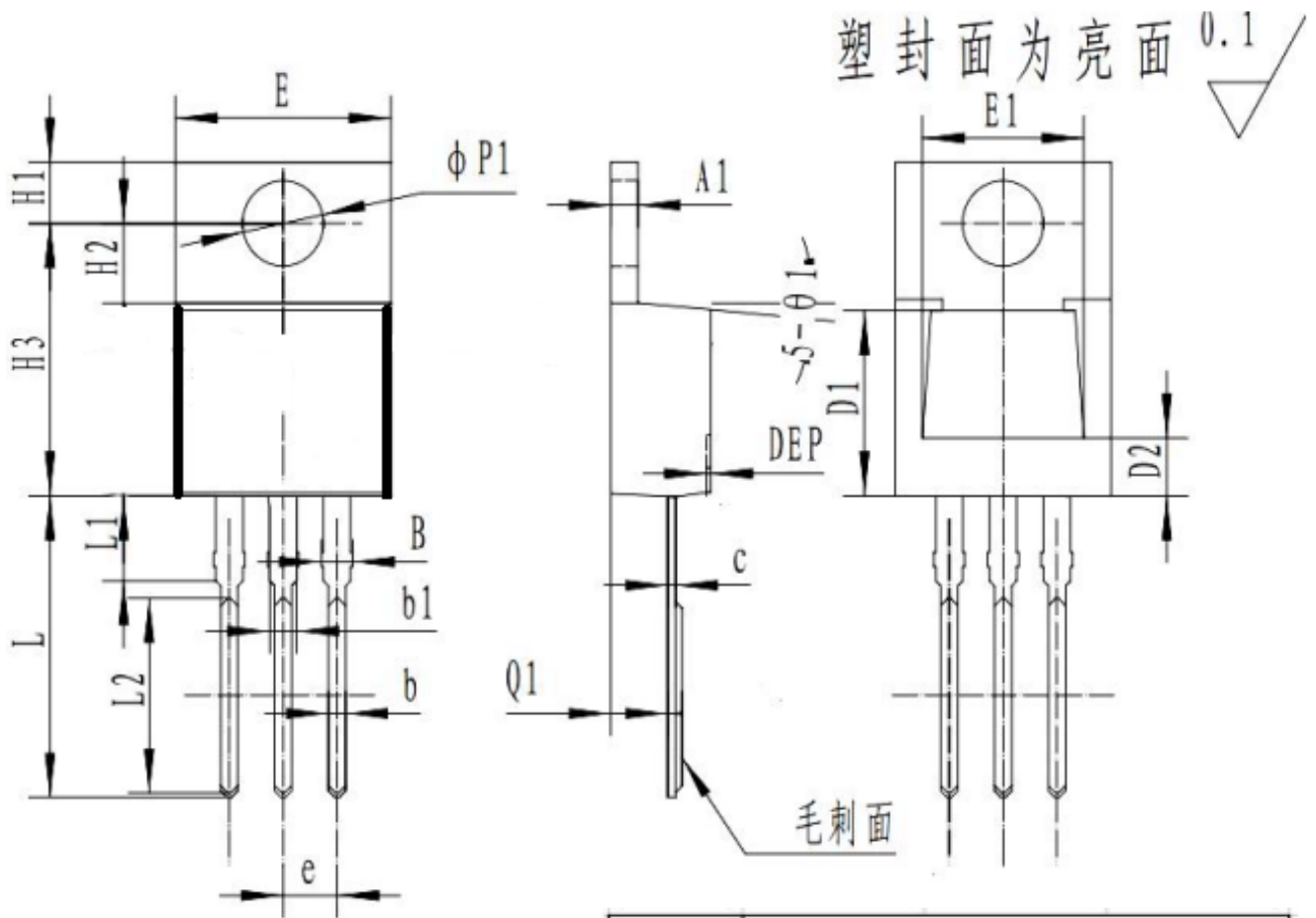
Parameter	Symbol	Test conditions	Min	Typ	Max	Unit
Collector-base breakdown voltage	$V_{(BR)CBO}$	$I_C=-5\text{mA}, I_E=0$	-200			V
Collector-emitter breakdown voltage	$V_{(BR)CEO}^*$	$I_C=-50\text{mA}, I_B=0$	-150			V
Emitter-base breakdown voltage	$V_{(BR)EBO}$	$I_E=-5\text{mA}, I_C=0$	-6			V
Collector cut-off current	$I_{CBO}$	$V_{CB}=-120\text{V}, I_E=0$			-1	$\mu\text{A}$
Emitter cut-off current	$I_{EBO}$	$V_{EB}=-5\text{V}, I_C=0$			-1	$\mu\text{A}$
DC current gain	$h_{FE(1)}$	$V_{CE}=-4\text{V}, I_C=-50\text{mA}$	60		200	
	$h_{FE(2)}^*$	$V_{CE}=-10\text{V}, I_C=-500\text{mA}$	60			
Collector-emitter saturation voltage	$V_{CE(sat)}$	$I_C=-500\text{mA}, I_B=-50\text{mA}$			-3	V
Base-emitter voltage	$V_{BE}$	$V_{CE}=-4\text{V}, I_C=-50\text{mA}$			-1	V
Collector output capacitance	$C_{ob}$	$V_{CB}=-10\text{V}, I_E=0, f=1\text{MHz}$		30		pF

\*Pulse test

### CLASSIFICATION OF $h_{FE(1)}$

RANK	B	C
RANGE	60-120	100-200





SYMBOL	MM		
	MIN	NOM	MAX
*A	4.60	4.70	4.80
A1	1.22	1.27	1.32
*b	0.76	0.81	0.86
b1	1.22	1.27	1.32
*B	1.27	1.37	1.45
*c	0.33	0.38	0.43
D1	7.60	7.75	7.90
D2	2.50	2.60	2.70
*E	10.00	10.10	10.20
E1	7.70	7.80	7.90
H1	2.64	2.74	2.84
H2	3.46	3.56	3.66
*H3	12.10	12.20	12.30
H4	1.90	2.00	2.10
*e	2.49	2.54	2.59
*L	13.45	3.85	13.85
L1	3.58	3.78	3.98
L2	8.66	8.76	8.86
*Q1	2.59	2.69	2.79
$\theta 1$	$3^\circ$	$5^\circ$	$7^\circ$
$\phi P1$	3.85	3.90	3.95
DEP	0.05	0.10	0.20

带\*为检验尺寸