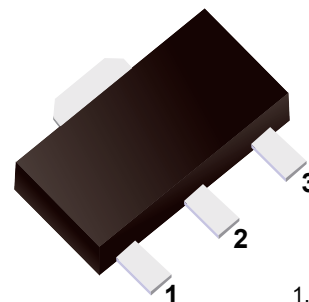


## PNP Transistors

### ■ Features

- High Voltage
- High Transition Frequency
- Small Flat Package



1.Base  
2.Collector  
3.Emitter

### ■ Simplified outline(SOT-89)

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

Parameter	Symbol	Rating	Unit
Collector - Base Voltage	$V_{CB0}$	-120	V
Collector - Emitter Voltage	$V_{CE0}$	-120	
Emitter - Base Voltage	$V_{EB0}$	-5	
Collector Current - Continuous	$I_c$	-800	mA
Base Current	$I_B$	-160	
Collector Power Dissipation	$P_c$	500	mW
		1	W
Junction Temperature	$T_J$	150	$^\circ\text{C}$
Storage Temperature range	$T_{stg}$	-55 to 150	

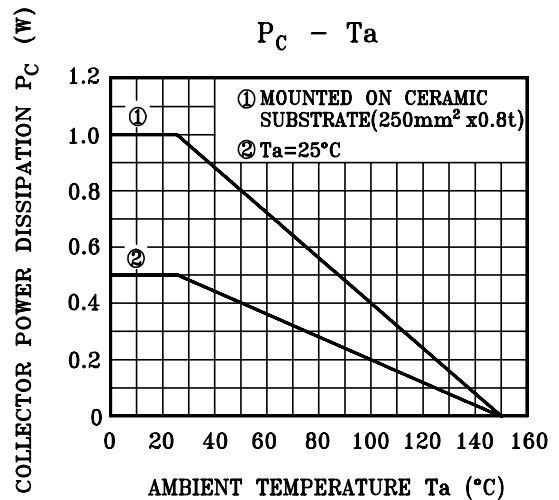
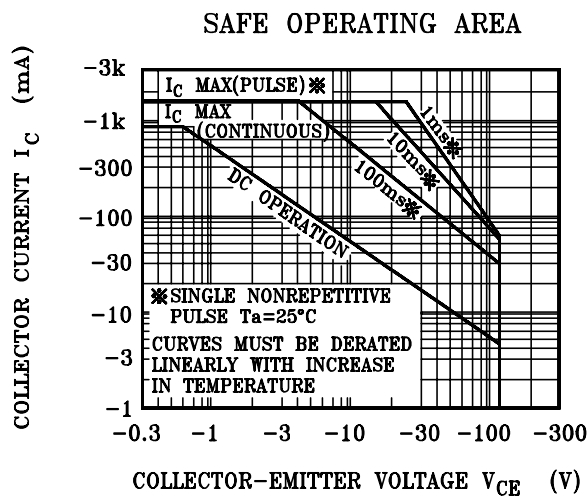
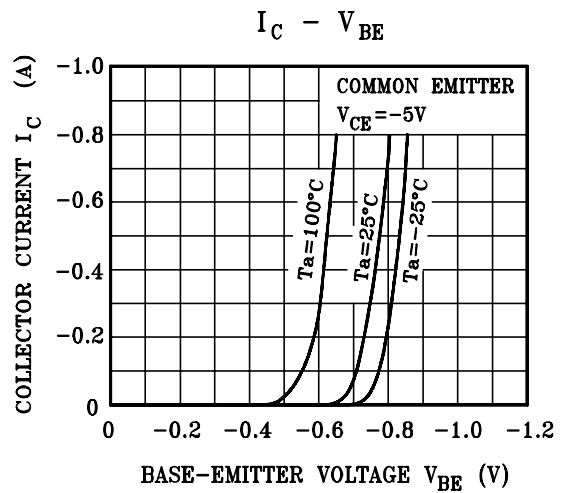
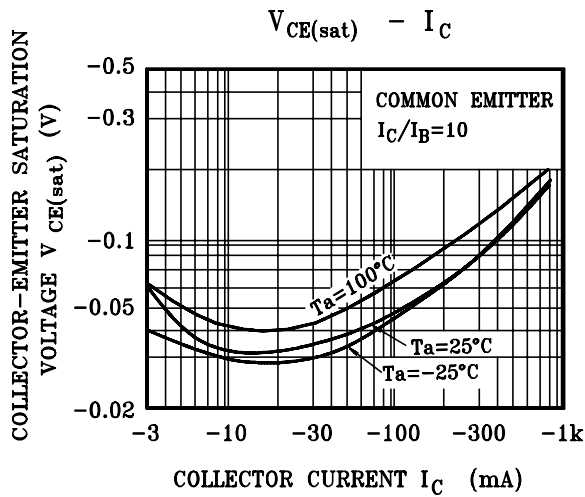
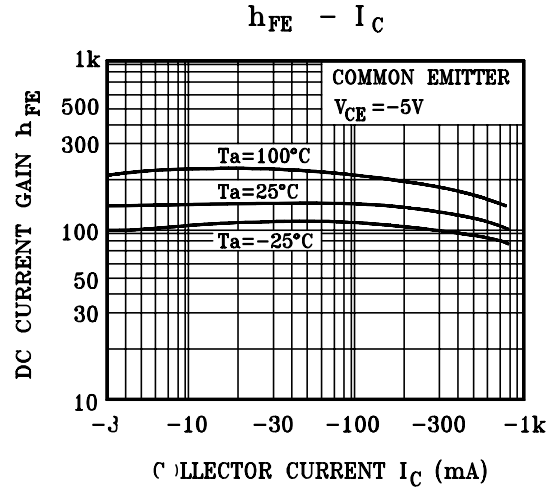
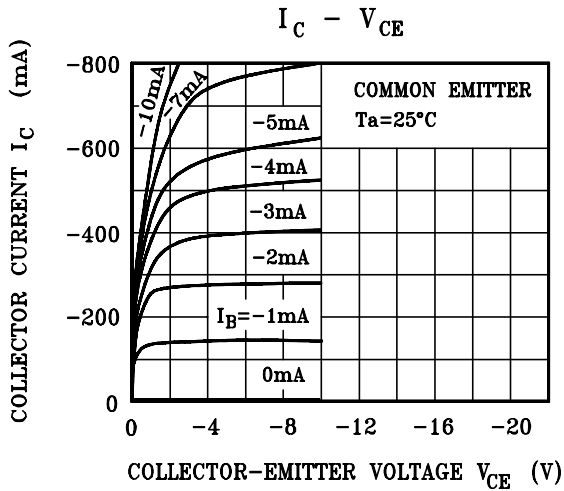
### ■ Electrical Characteristics $T_a = 25^\circ\text{C}$

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Collector- base breakdown voltage	$V_{CB0}$	$I_c = -1\text{mA}, I_E = 0$	-120			V
Collector- emitter breakdown voltage	$V_{CE0}$	$I_c = -10\text{mA}, I_B = 0$	-120			
Emitter - base breakdown voltage	$V_{EB0}$	$I_E = -1\text{mA}, I_c = 0$	-5			
Collector-base cut-off current	$I_{CB0}$	$V_{CB} = -120\text{V}, I_E = 0$			-100	nA
Emitter cut-off current	$I_{EB0}$	$V_{EB} = -5\text{V}, I_c = 0$			-100	
Collector-emitter saturation voltage	$V_{CE(sat)}$	$I_c = -500\text{mA}, I_B = -50\text{mA}$			-1	V
Base - emitter saturation voltage	$V_{BE(sat)}$	$I_c = -500\text{mA}, I_B = -50\text{mA}$			-1.2	
Base - emitter voltage	$V_{BE}$	$V_{CE} = -5\text{V}, I_c = -500\text{mA}$			-1	
DC current gain	$h_{FE}$	$V_{CE} = -5\text{V}, I_c = -100\text{mA}$	80		240	
Collector output capacitance	$C_{ob}$	$V_{CB} = -10\text{V}, I_E = 0, f = 1\text{MHz}$			30	pF
Transition frequency	$f_T$	$V_{CE} = -5\text{V}, I_c = -100\text{mA}$		120		MHz

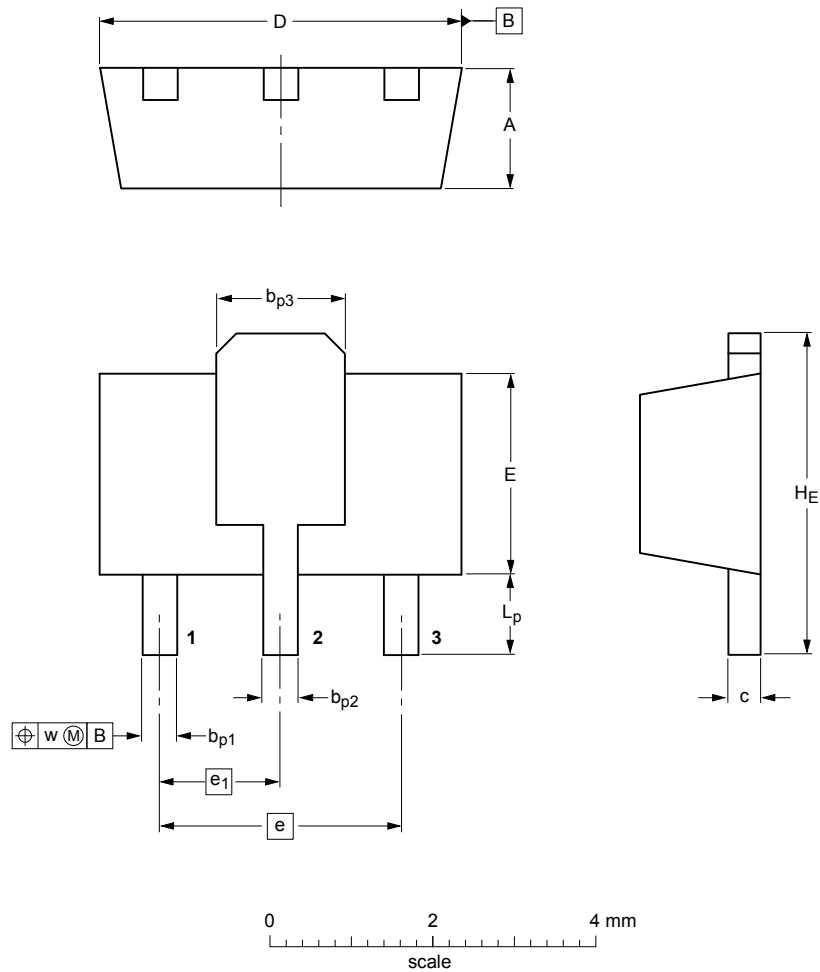
### ■ Classification of $h_{FE}$

Type	2SA1661-O	2SA1661-Y
Range	80-160	120-240
Marking	DO	DY

■ Typical Characteristics



■ SOT-89



**DIMENSIONS (mm are the original dimensions)**

UNIT	A	$b_{p1}$	$b_{p2}$	$b_{p3}$	c	D	E	e	$e_1$	$H_E$	$L_p$	w
mm	1.6	0.48	0.53	1.8	0.44	4.6	2.6	3.0	1.5	4.25	1.2	0.13
	1.4	0.35	0.40	1.4	0.23	4.4	2.4					