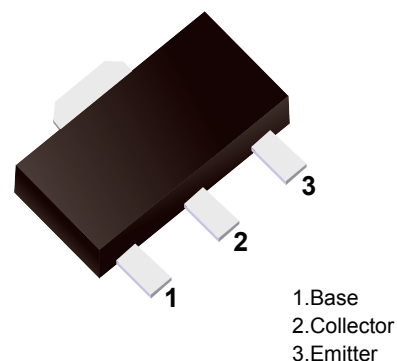


PNP Transistors

■ Features

- High Voltage
- High Transition Frequency
- Small Flat Package



■ Simplified outline(SOT-89)

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

Parameter	Symbol	Rating	Unit
Collector - Base Voltage	V_{CBO}	-120	V
Collector - Emitter Voltage	V_{CEO}	-120	
Emitter - Base Voltage	V_{EBO}	-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	

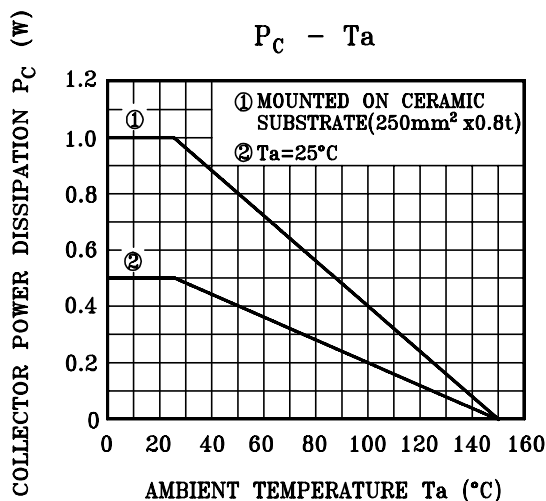
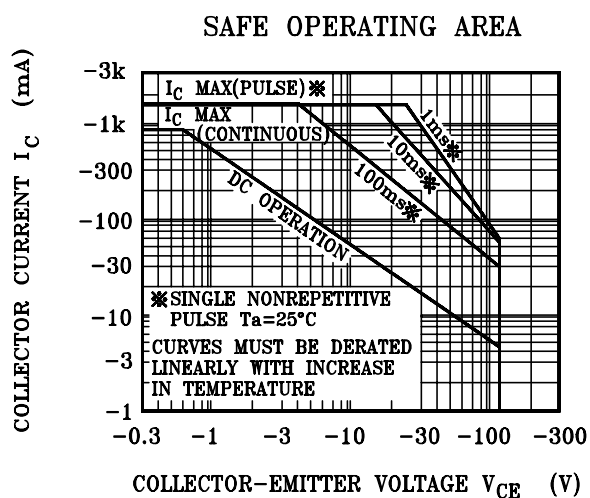
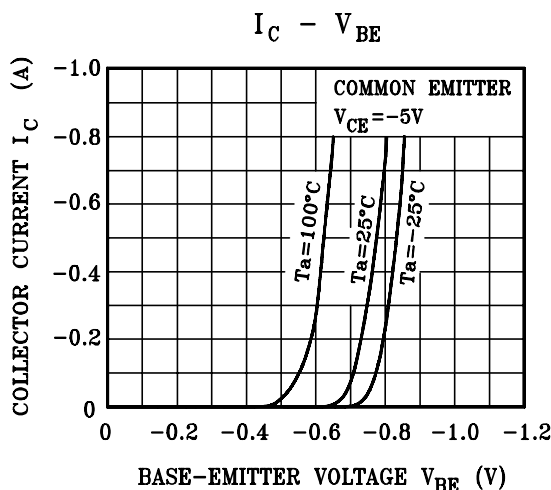
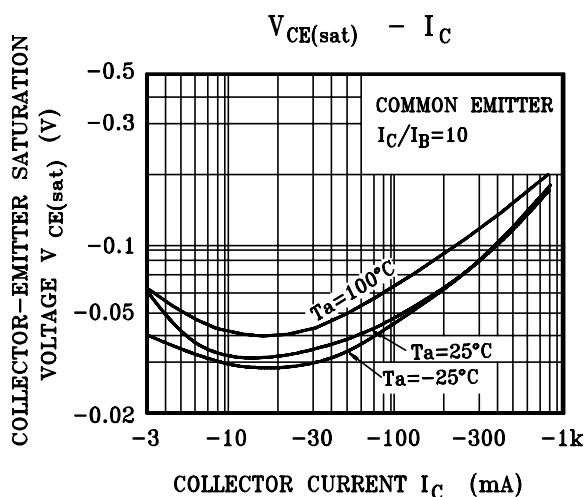
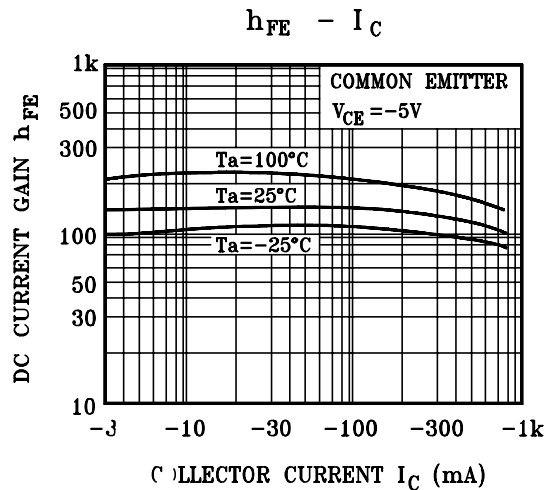
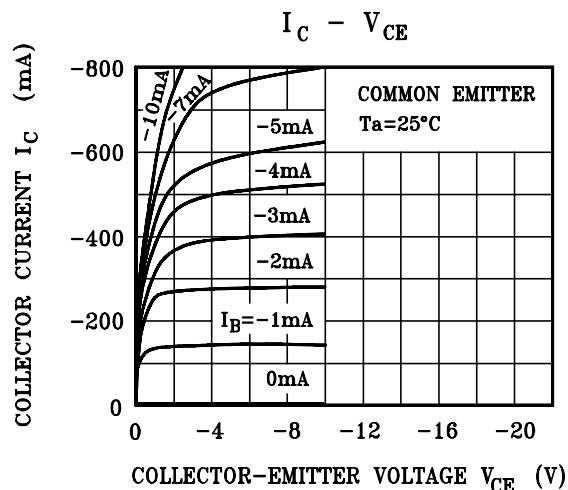
■ Electrical Characteristics $T_a = 25^\circ\text{C}$

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Collector- base breakdown voltage	V_{CBO}	$I_C = -1\text{mA}, I_E = 0$	-120			V
Collector- emitter breakdown voltage	V_{CEO}	$I_C = -10\text{mA}, I_B = 0$	-120			
Emitter - base breakdown voltage	V_{EBO}	$I_E = -1\text{mA}, I_C = 0$	-5			
Collector-base cut-off current	I_{CBO}	$V_{CB} = -120\text{V}, I_E = 0$			-100	nA
Emitter cut-off current	I_{EBO}	$V_{EB} = -5\text{V}, I_C = 0$			-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

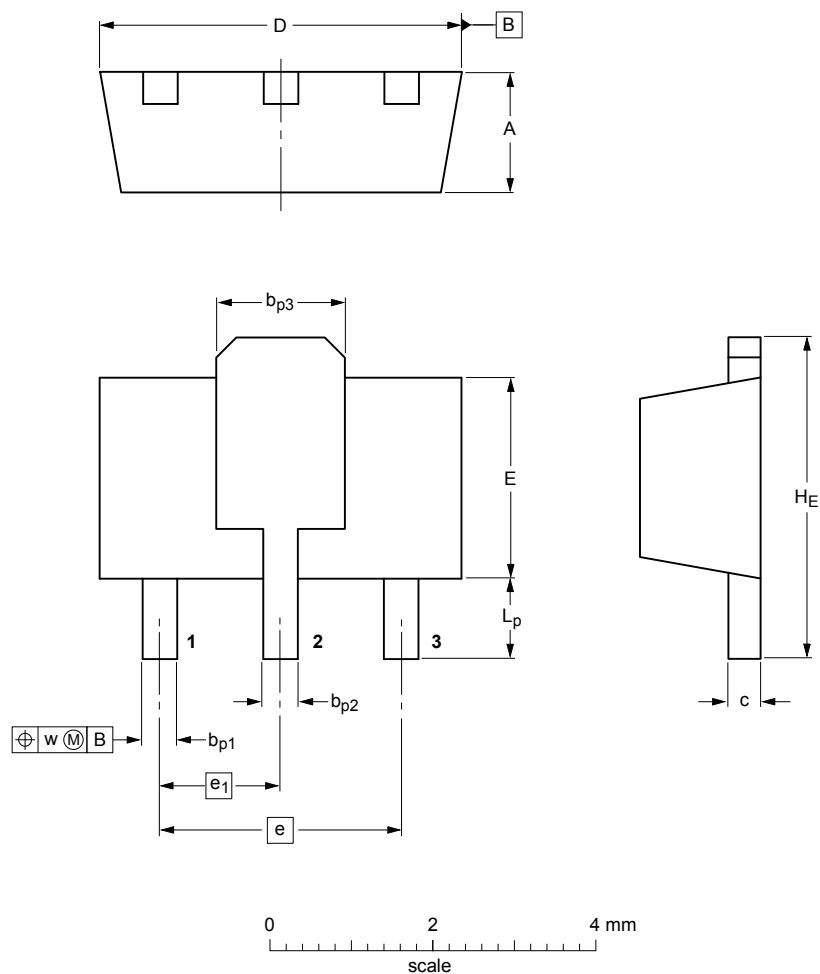
■ Classification of h_{FE}

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 1.4	0.48 0.35	0.53 0.40	1.8 1.4	0.44 0.23	4.6 4.4	2.6 2.4	3.0	1.5	4.25 3.75	1.2 0.8	0.13