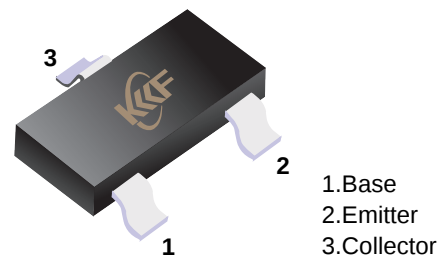


2SA1162

PNP Transistors

Features

- High voltage and high current
- High h_{FE} : $h_{FE} = 70 \sim 400$
- Low noise: $NF = 1\text{dB (typ.)}$, 10dB (max)
- Complementary to 2SC2712



■ Simplified outline(SOT-23)

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

Parameter	Symbol	Rating	Unit
Collector - Base Voltage	V_{CBO}	-50	V
Collector - Emitter Voltage	V_{CEO}	-50	
Emitter - Base Voltage	V_{EBO}	-5	
Collector Current - Continuous	I_C	-150	mA
Base Current	I_B	-30	
Collector Power Dissipation	P_C	150	mW
Junction Temperature	T_J	125	$^\circ\text{C}$
Storage Temperature range	T_{stg}	-55 to 125	

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

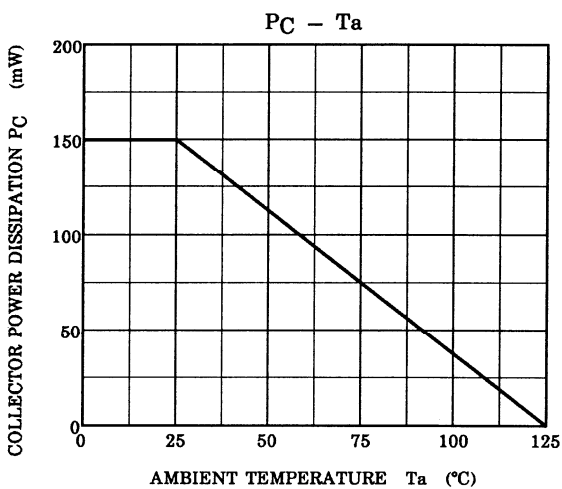
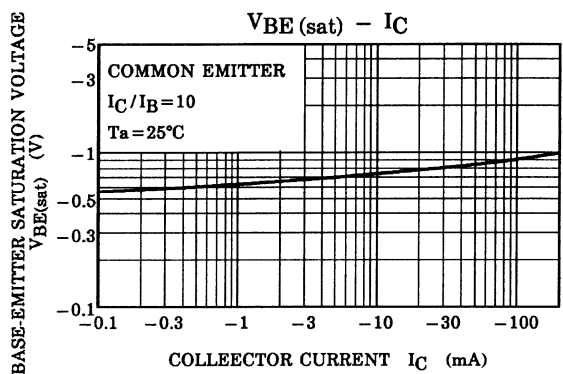
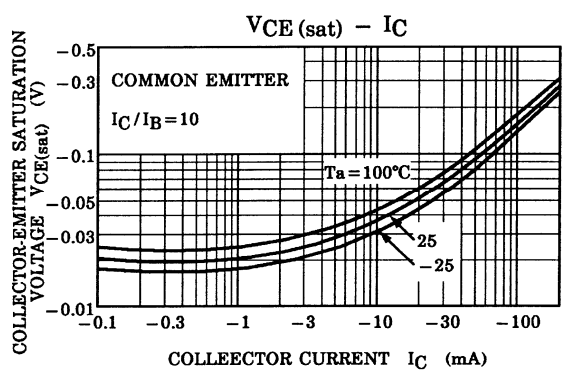
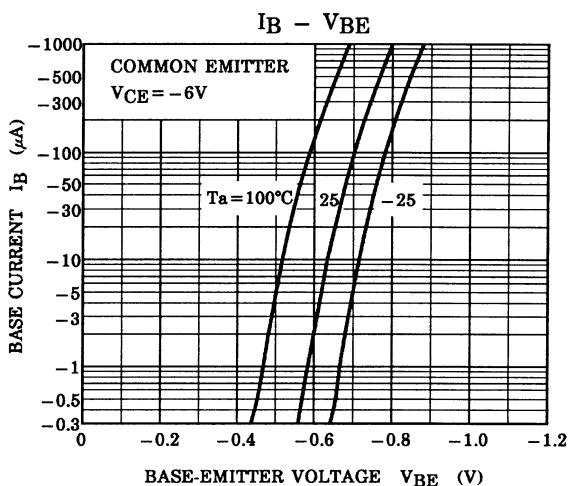
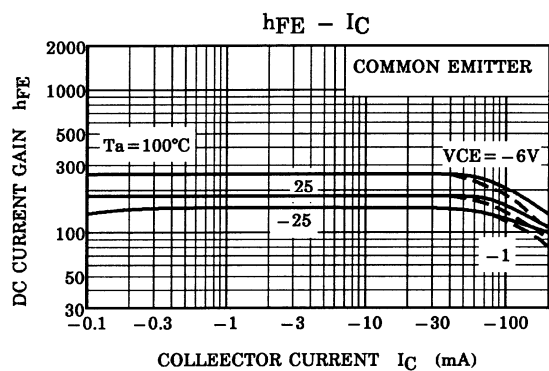
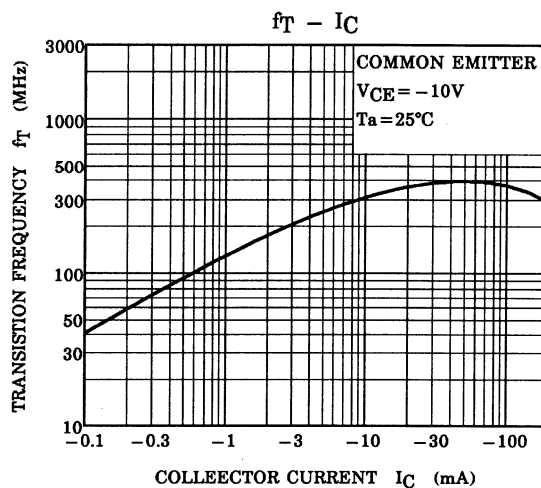
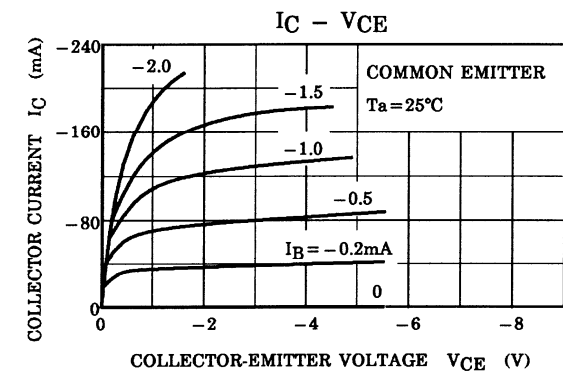
Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Collector- base breakdown voltage	V_{CBO}	$I_C = -100\ \mu\text{A}$, $I_E = 0$	-50			V
Collector- emitter breakdown voltage	V_{CEO}	$I_C = -1\ \text{mA}$, $I_B = 0$	-50			
Emitter - base breakdown voltage	V_{EBO}	$I_E = -100\ \mu\text{A}$, $I_C = 0$	-5			
Collector-base cut-off current	I_{CBO}	$V_{CB} = -50\ \text{V}$, $I_E = 0$			-100	nA
Emitter cut-off current	I_{EBO}	$V_{EB} = -5\ \text{V}$, $I_C = 0$			-100	
Collector-emitter saturation voltage	$V_{CE(sat)}$	$I_C = -100\ \text{mA}$, $I_B = -10\ \text{mA}$			-0.3	V
Base - emitter saturation voltage	$V_{BE(sat)}$	$I_C = -100\ \text{mA}$, $I_B = -10\ \text{mA}$			-1.2	
DC current gain	h_{FE}	$V_{CE} = -6\ \text{V}$, $I_C = -2\ \text{mA}$	70		400	
Noise figure	NF	$V_{CE} = -6\ \text{V}$, $I_C = -0.1\ \text{mA}$, $f = 1\ \text{kHz}$, $R_g = 10\ \text{k}\Omega$			10	dB
Collector output capacitance	C_{ob}	$V_{CB} = -10\ \text{V}$, $I_E = 0$, $f = 1\ \text{MHz}$			7	pF
Transition frequency	f_T	$V_{CE} = -10\ \text{V}$, $I_C = -1\ \text{mA}$	80			MHz

Classification of h_{FE}

Type	2SA1162-O	2SA1162-Y	2SA1162-G
Range	70-140	120-240	200-400
Marking	SO	SY	SG

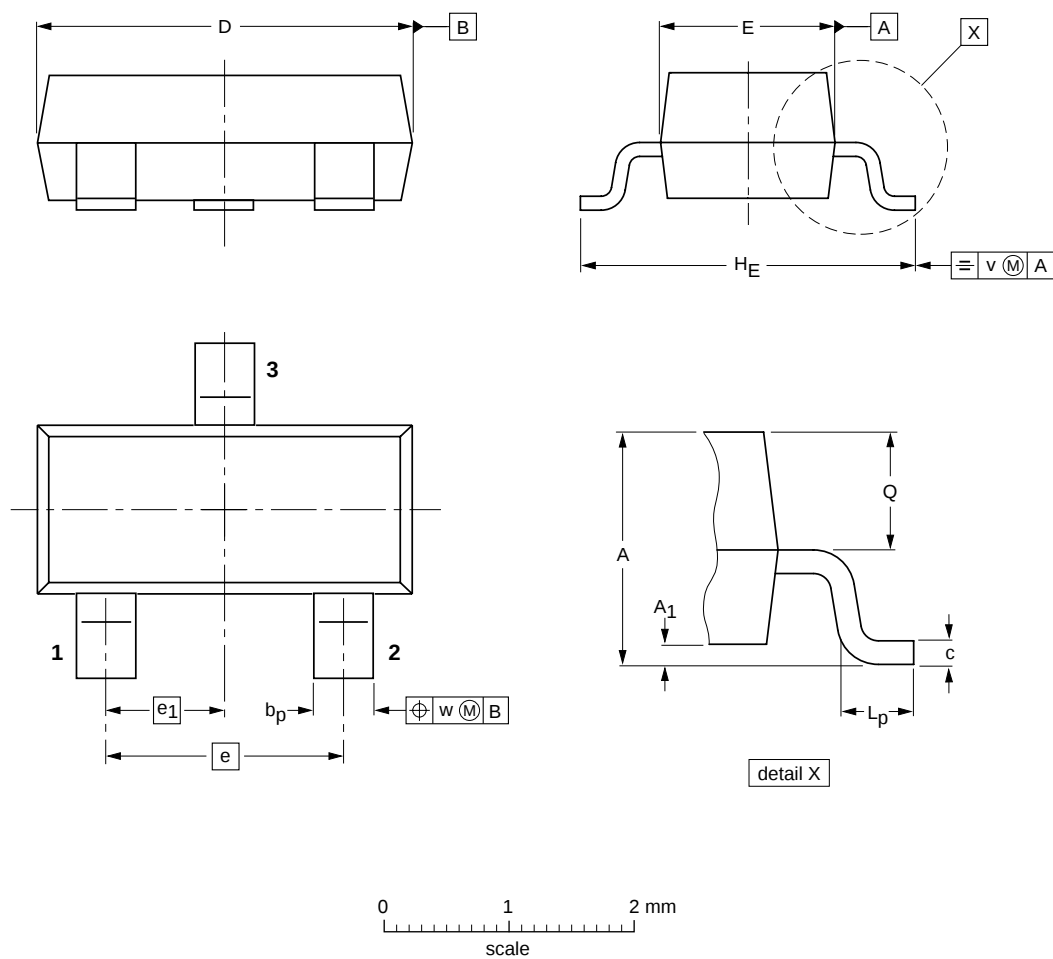
2SA1162

■ Typical Characteristics



2SA1162

■ SOT-23



DIMENSIONS (mm are the original dimensions)

UNIT	A	A ₁ max.	b _p	c	D	E	e	e ₁	H _E	L _p	Q	v	w
mm	1.1 0.9	0.1	0.48 0.38	0.15 0.09	3.0 2.8	1.4 1.2	1.9	0.95	2.5 2.1	0.45 0.15	0.55 0.45	0.2	0.1