

■ PNP Transistors



■ Simplified outline(SOT-23)

■ Features

- High voltage and high current
- High hFE: hFE = 70~400
- Low noise: NF = 1dB (typ.), 10dB (max)
- Complementary to 2SC2712

■ Absolute Maximum Ratings Ta = 25°C

Parameter	Symbol	Rating	Unit
Collector - Base Voltage	V <sub>CB0</sub>	-50	V
Collector - Emitter Voltage	V <sub>CE0</sub>	-50	
Emitter - Base Voltage	V <sub>EB0</sub>	-5	
Collector Current - Continuous	I <sub>c</sub>	-150	mA
Base Current	I <sub>B</sub>	-30	
Collector Power Dissipation	P <sub>c</sub>	150	mW
Junction Temperature	T <sub>J</sub>	125	°C
Storage Temperature range	T <sub>stg</sub>	-55 to 125	

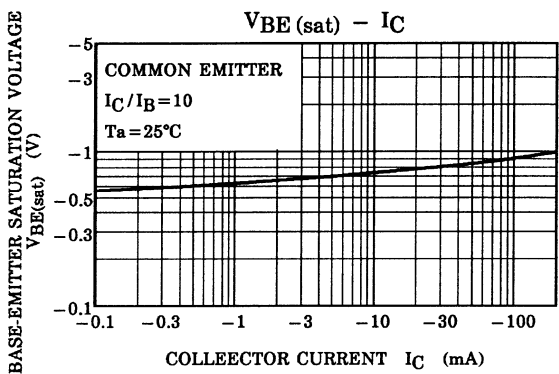
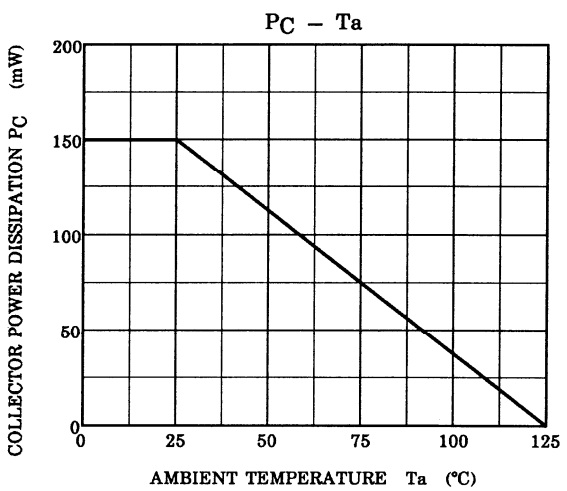
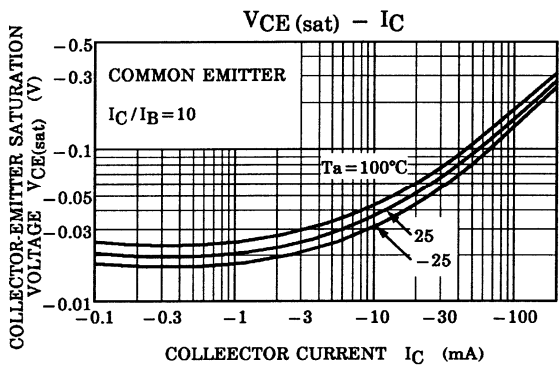
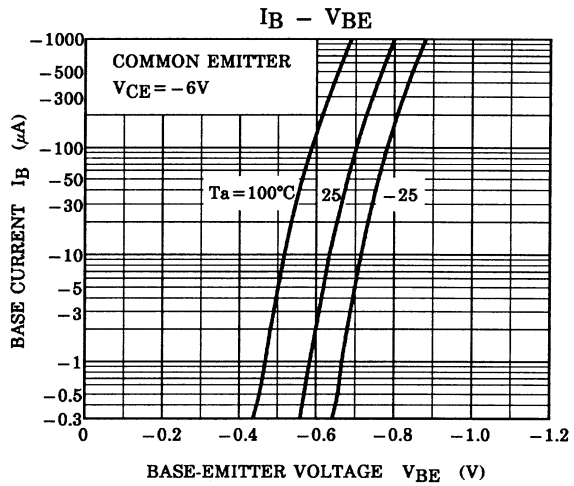
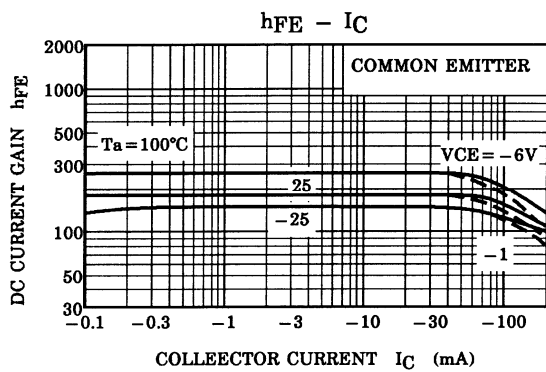
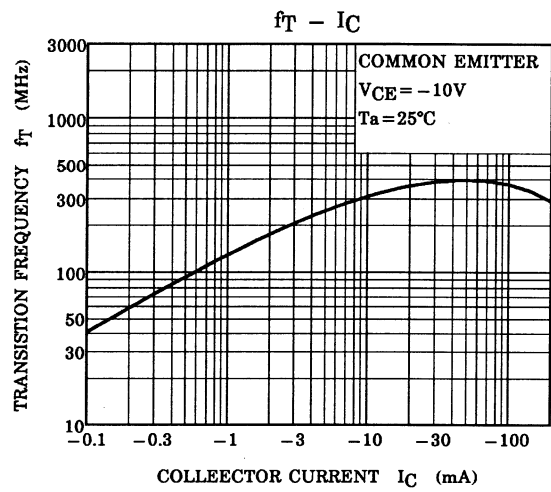
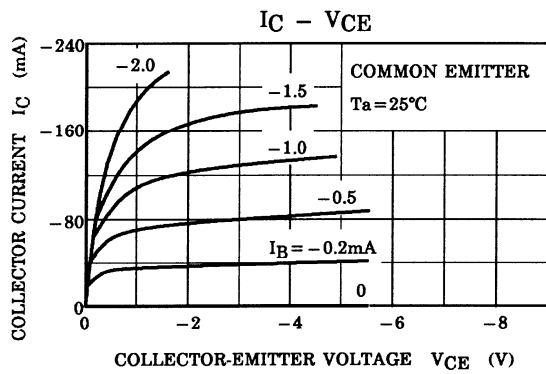
■ Electrical Characteristics Ta = 25°C

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Collector- base breakdown voltage	V <sub>CB0</sub>	I <sub>c</sub> = -100 μA, I <sub>E</sub> =0	-50			V
Collector- emitter breakdown voltage	V <sub>CE0</sub>	I <sub>c</sub> = -1 mA, I <sub>B</sub> =0	-50			
Emitter - base breakdown voltage	V <sub>EB0</sub>	I <sub>E</sub> = -100 μA, I <sub>c</sub> =0	-5			
Collector-base cut-off current	I <sub>CB0</sub>	V <sub>CB</sub> = -50 V, I <sub>E</sub> =0			-100	nA
Emitter cut-off current	I <sub>EB0</sub>	V <sub>EB</sub> = -5V, I <sub>c</sub> =0			-100	
Collector-emitter saturation voltage	V <sub>CE(sat)</sub>	I <sub>c</sub> =-100 mA, I <sub>B</sub> =-10mA			-0.3	V
Base - emitter saturation voltage	V <sub>BE(sat)</sub>	I <sub>c</sub> =-100 mA, I <sub>B</sub> =-10mA			-1.2	
DC current gain	h <sub>FE</sub>	V <sub>CE</sub> = -6V, I <sub>c</sub> = -2mA	70		400	
Noise figure	NF	V <sub>CE</sub> = -6 V, I <sub>C</sub> = -0.1 mA, f = 1 kHz, R <sub>g</sub> = 10 kΩ,			10	dB
Collector output capacitance	C <sub>ob</sub>	V <sub>CB</sub> = -10V, I <sub>E</sub> = 0,f=1MHz			7	pF
Transition frequency	f <sub>T</sub>	V <sub>CE</sub> = -10V, I <sub>c</sub> = -1mA	80			MHz

■ Classification of hfe

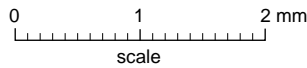
Type	2SA1162-O	2SA1162-Y	2SA1162-G
Range	70-140	120-240	200-400
Marking	SO	SY	SG

■ Typical Characteristics



**Package Outline**

**SOT-23**



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

UNIT	A	A <sub>1</sub> max.	b <sub>p</sub>	c	D	E	e	e <sub>1</sub>	H <sub>E</sub>	L <sub>p</sub>	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

**Summary of Packing Options**

Package	Packing Description	Packing Quantity	Industry Standard
SOT-23	Tape/Reel, 7" reel	3000	EIA-481-1