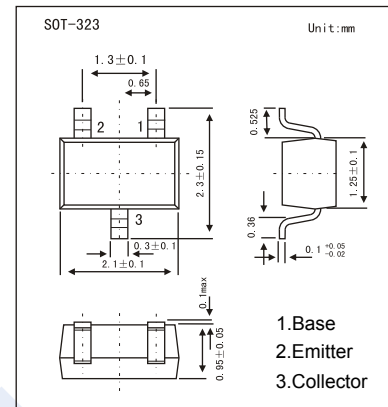


PNP Transistors

2SA1612

■ Features

- High DC Current Gain
- Complementary to 2SC4180



■ 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	-50	mA
Collector Power Dissipation	P_C	150	mW
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}	$I_C = -100 \mu\text{A}, I_E = 0$	-120			V
Collector- emitter breakdown voltage	V_{CE0}	$I_C = -1 \text{ mA}, I_B = 0$	-120			
Emitter - base breakdown voltage	V_{EB0}	$I_E = -100 \mu\text{A}, I_C = 0$	-5			
Collector-base cut-off current	I_{CB0}	$V_{CB} = -120 \text{ V}, I_E = 0$			-0.1	μA
Emitter cut-off current	I_{EB0}	$V_{EB} = -5 \text{ V}, I_C = 0$			-0.1	
Collector-emitter saturation voltage	$V_{CE(sat)}$	$I_C = -10 \text{ mA}, I_B = -1 \text{ mA}$		-0.09	-0.3	V
Base - emitter saturation voltage	$V_{BE(sat)}$	$I_C = -10 \text{ mA}, I_B = -1 \text{ mA}$			-1.2	
Base - emitter voltage	V_{BE}	$V_{CE} = -6 \text{ V}, I_C = -1 \text{ mA}$	-0.55	-0.61	-0.65	
DC current gain	$h_{FE(1)}$	$V_{CE} = -6 \text{ V}, I_C = -0.1 \text{ mA}$ (Note.1)	100	500		
	$h_{FE(2)}$	$V_{CE} = -6 \text{ V}, I_C = -1 \text{ mA}$	135	500	900	
Collector output capacitance	C_{ob}	$V_{CB} = -30 \text{ V}, I_E = 0, f = 1 \text{ MHz}$		2	3	pF
Transition frequency	f_T	$V_{CE} = -6 \text{ V}, I_C = -1 \text{ mA}$	50	90		MHz

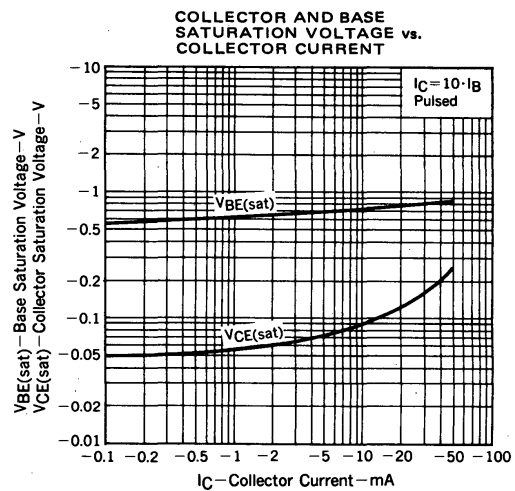
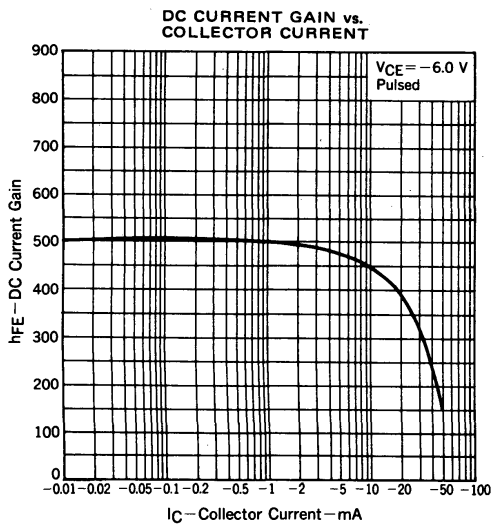
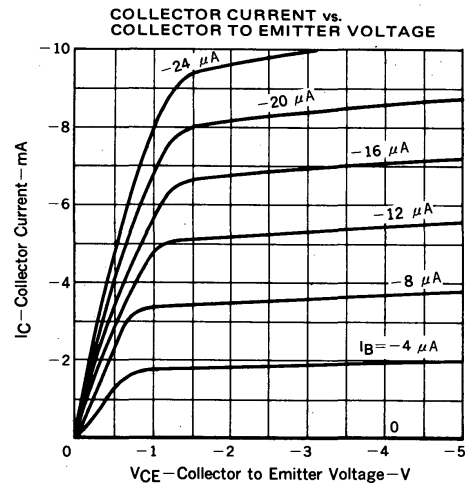
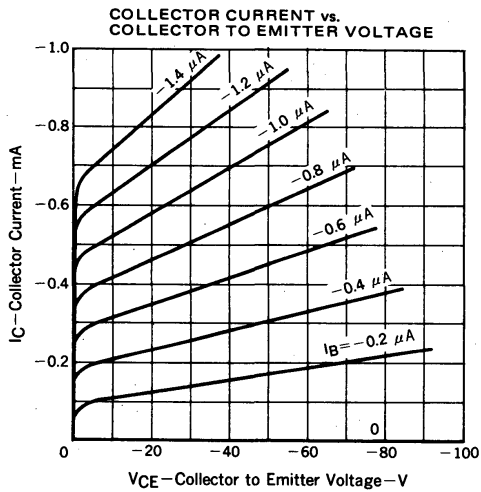
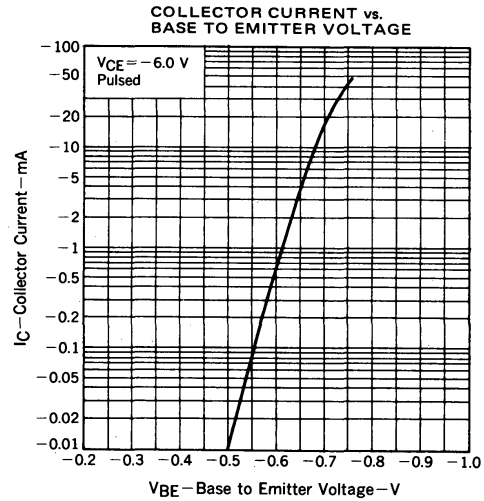
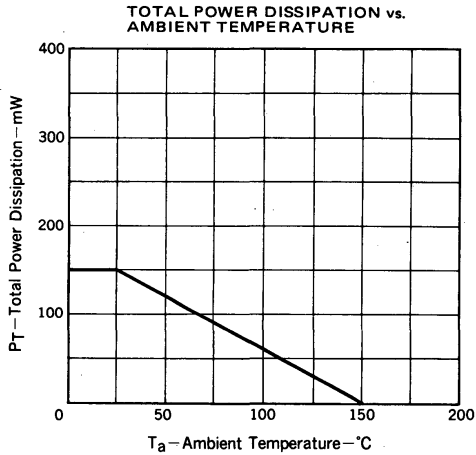
■ Classification of $h_{FE(2)}$

Type	2SA1612-C15	2SA1612-C16	2SA1612-C17	2SA1612-C18
Range	135-270	200-400	300-600	450-900
Marking	C15	C16	C17	C18

PNP Transistors

2SA1612

■ Typical Characteristics



PNP Transistors

2SA1612

■ Typical Characteristics

