

UN6121/6122/6123/6124/612X/612Y

Silicon PNP epitaxial planer transistor

For digital circuits

Features

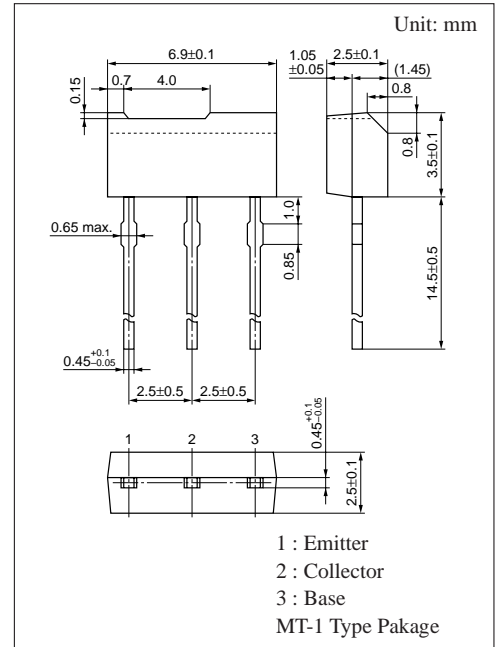
- Costs can be reduced through downsizing of the equipment and reduction of the number of parts.
- MT-1 type package, allowing supply with the radial tapping.

Resistance by Part Number

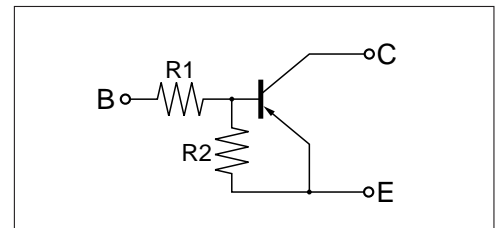
	(R ₁)	(R ₂)
• UN6121	2.2kΩ	2.2kΩ
• UN6122	4.7kΩ	4.7kΩ
• UN6123	10kΩ	10kΩ
• UN6124	2.2kΩ	10kΩ
• UN612X	0.27kΩ	5kΩ
• UN612Y	3.1kΩ	4.6kΩ

Absolute Maximum Ratings (Ta=25°C)

Parameter	Symbol	Ratings	Unit
Collector to base voltage	V _{CBO}	-50	V
Collector to emitter voltage	V _{CEO}	-50	V
Collector current	I _C	-500	mA
Total power dissipation	P _T	600	mW
Junction temperature	T _j	150	°C
Storage temperature	T _{stg}	-55 to +150	°C



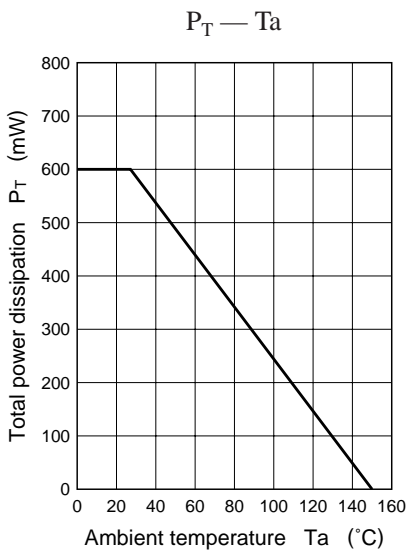
Internal Connection



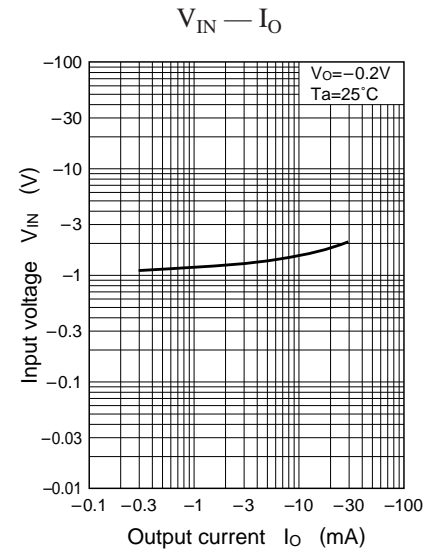
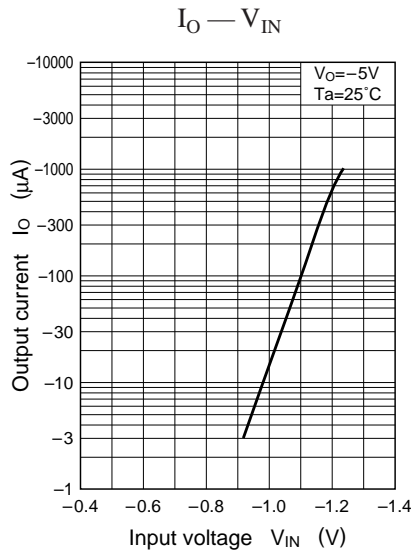
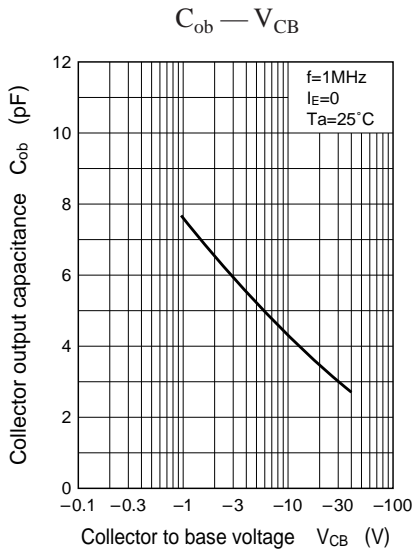
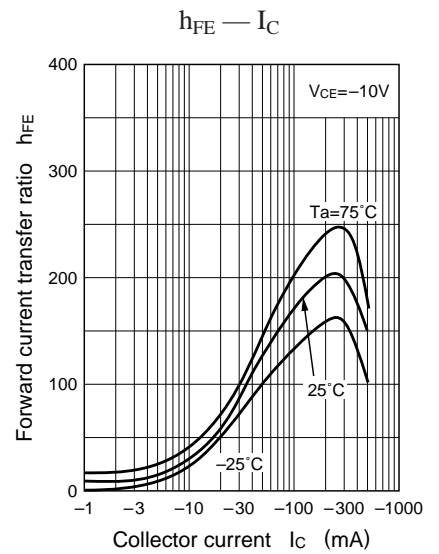
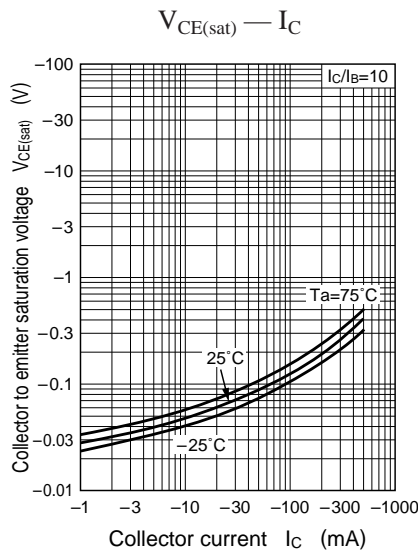
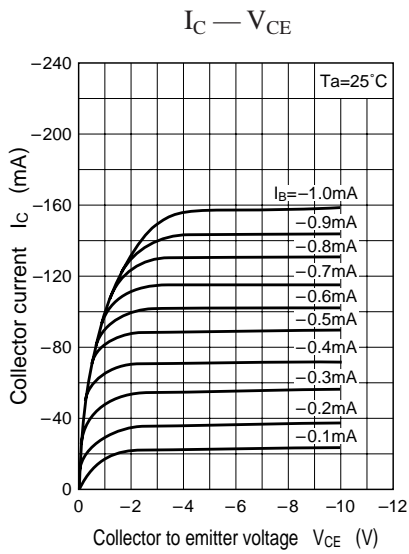
■ Electrical Characteristics (Ta=25°C)

Parameter		Symbol	Conditions	min	typ	max	Unit		
Collector cutoff current		I_{CBO}	$V_{CB} = -50V, I_E = 0$			-1	μA		
	UN612X	I_{CBO}	$V_{CB} = -50V, I_E = 0$			-0.1			
Collector cutoff current		I_{CEO}	$V_{CE} = -50V, I_B = 0$			-1	μA		
	UN612X	I_{CEO}	$V_{CE} = -50V, I_B = 0$			-0.5			
Emitter cutoff current	UN6121	I_{EBO}	$V_{EE} = -6V, I_C = 0$			-5	mA		
	UN6122/612X/612Y					-2			
	UN6123/6124					-1			
Collector to base voltage		V_{CBO}	$I_C = -10\mu A, I_E = 0$	-50			V		
Collector to emitter voltage		V_{CEO}	$I_C = -2mA, I_B = 0$	-50			V		
Forward current transfer ratio	UN6121	h_{FE}	$V_{CE} = -10V, I_C = -100mA$	40					
	UN6122/612Y			50					
	UN6123/6124			60					
	UN612X			20					
Collector to emitter saturation voltage		$V_{CE(sat)}$	$I_C = -100mA, I_B = -5mA$			-0.25	V		
		UN612X	$V_{CE(sat)}$	$I_C = -10mA, I_B = -0.3mA$				-0.25	
		UN612Y	$V_{CE(sat)}$	$I_C = -50mA, I_B = -5mA$				-0.15	
Output voltage high level		V_{OH}	$V_{CC} = -5V, V_B = -0.5V, R_L = 500\Omega$	-4.9			V		
Output voltage low level		V_{OL}	$V_{CC} = -5V, V_B = -3.5V, R_L = 500\Omega$			-0.2	V		
Transition frequency		f_T	$V_{CB} = -10V, I_E = 50mA, f = 200MHz$		80		MHz		
Input resistance	UN6121	R_1		(-30%)	2.2	(+30%)	k Ω		
	UN6122				4.7				
	UN6123				10				
	UN612X				0.27				
	UN612Y				3.1				
Resistance ratio		R_1/R_2			0.8	1.0	1.2		
					UN6124	0.17		0.22	0.27
					UN612X	0.043		0.054	0.065
					UN612Y			0.67	

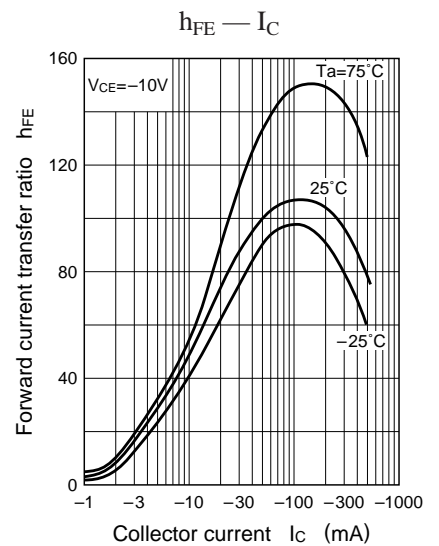
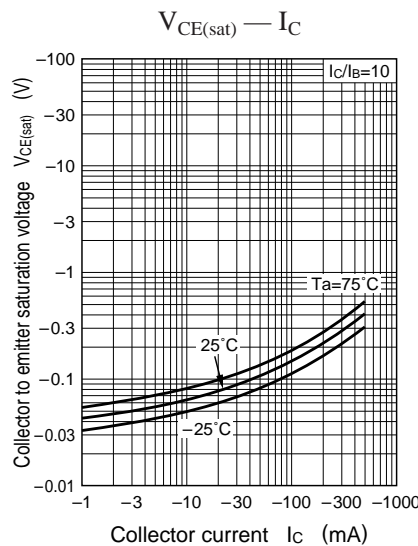
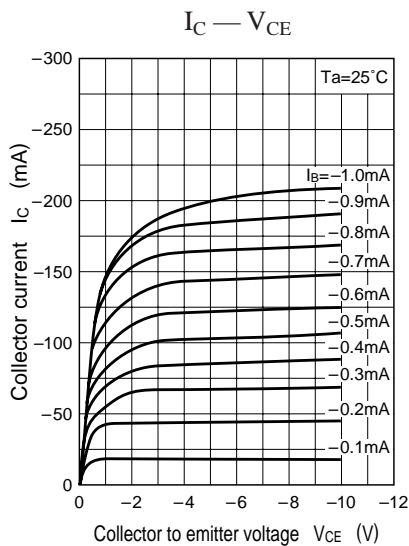
Common characteristics chart

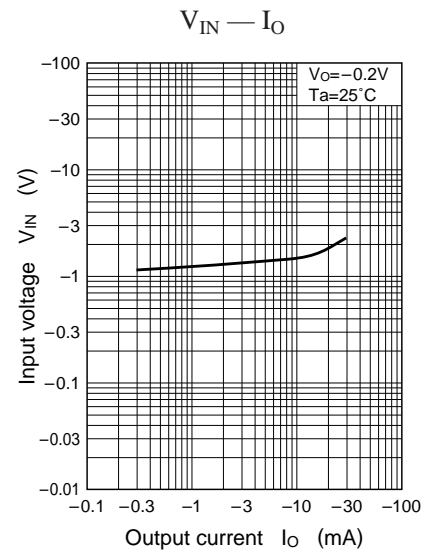
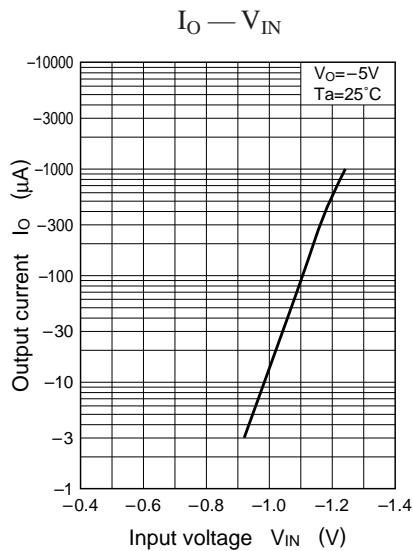
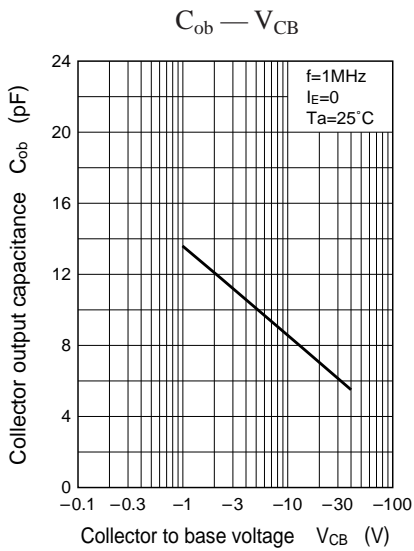


Characteristics charts of UN6121

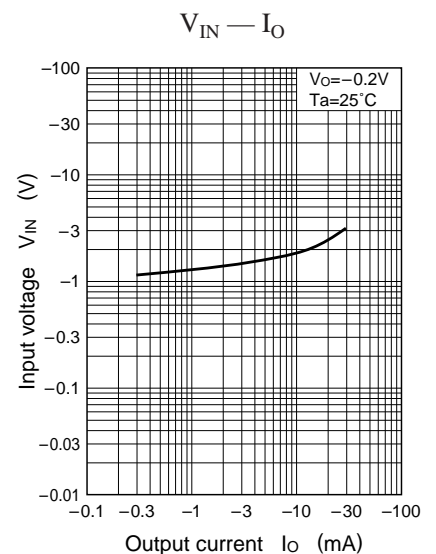
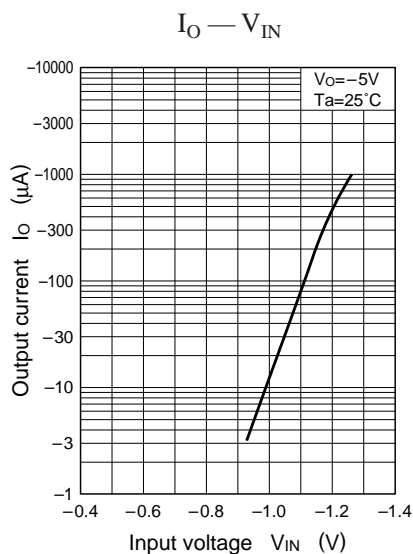
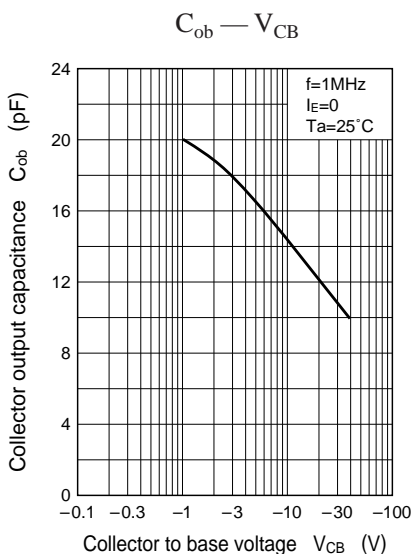
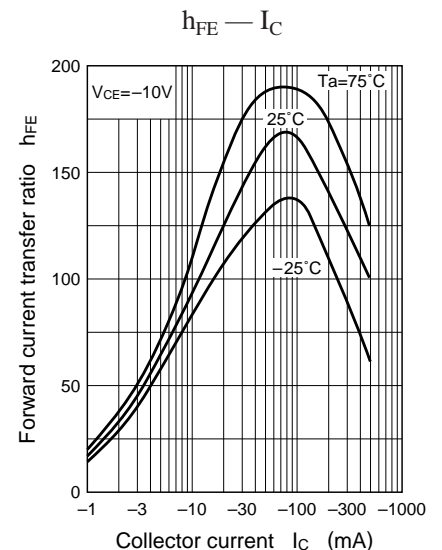
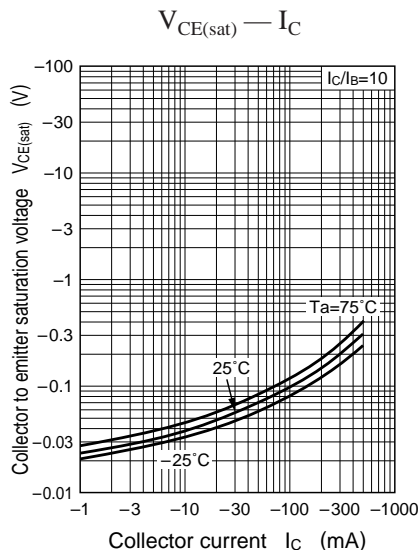
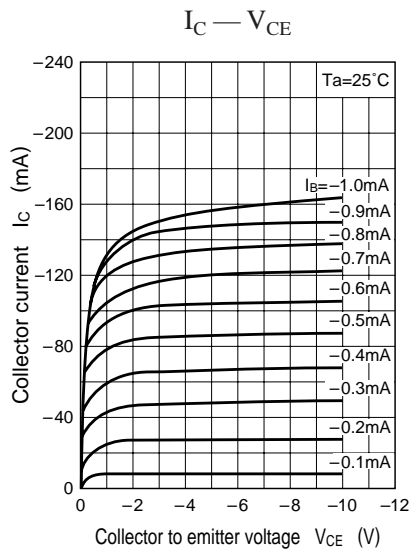


Characteristics charts of UN6122

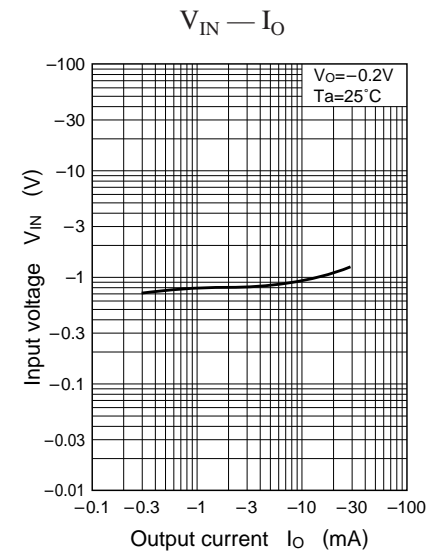
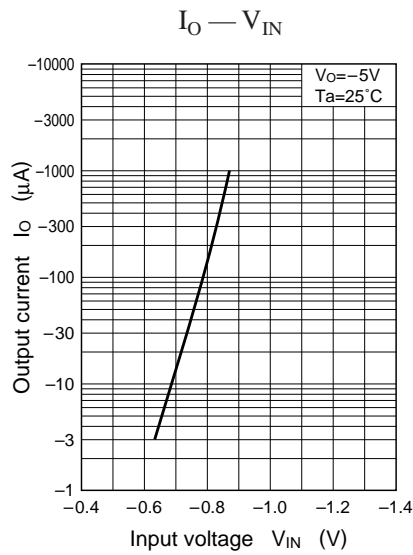
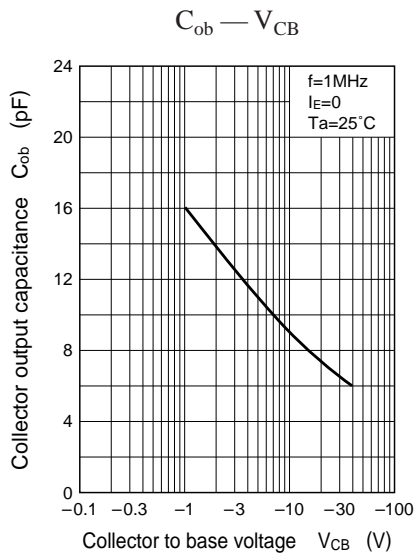
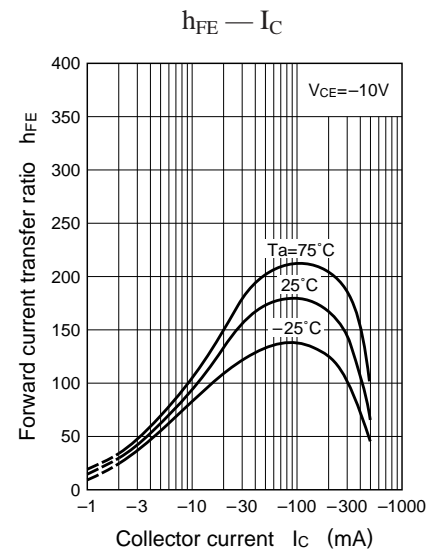
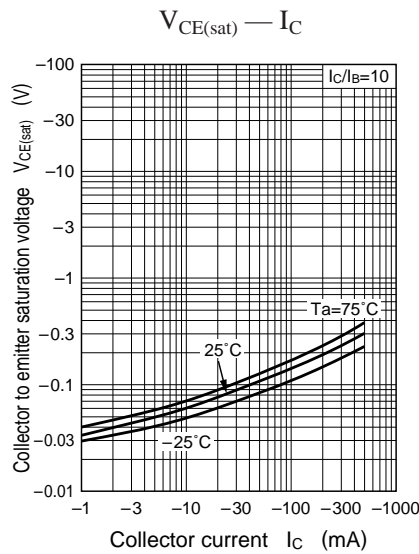
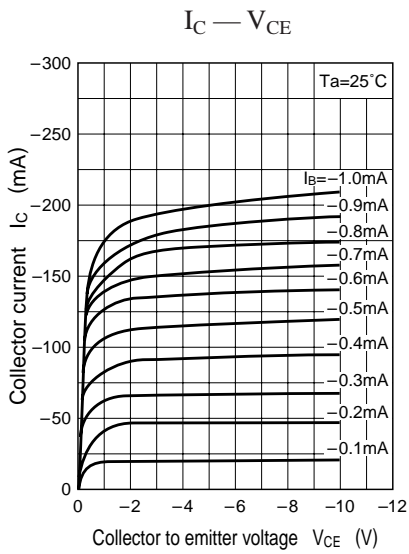




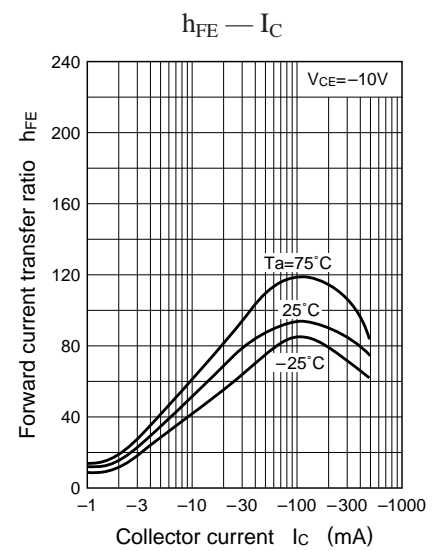
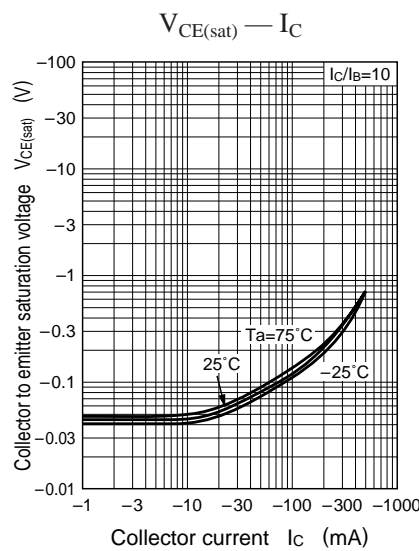
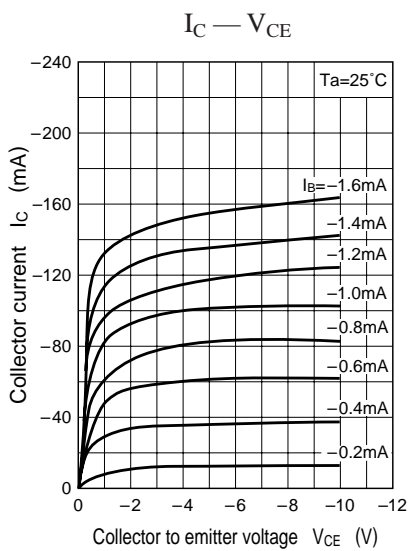
Characteristics charts of UN6123

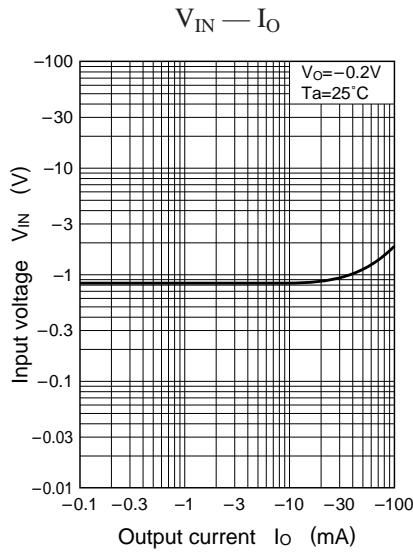
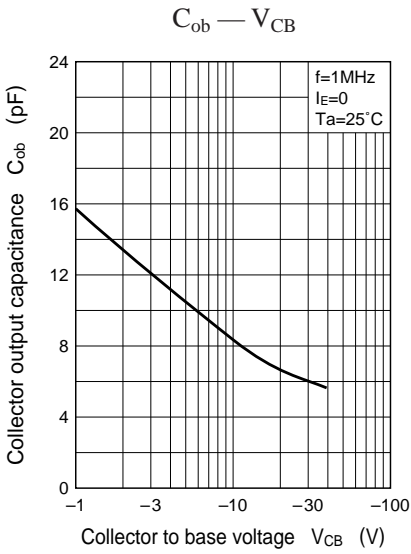


Characteristics charts of UN6124



Characteristics charts of UN612X





Characteristics charts of UN612Y

