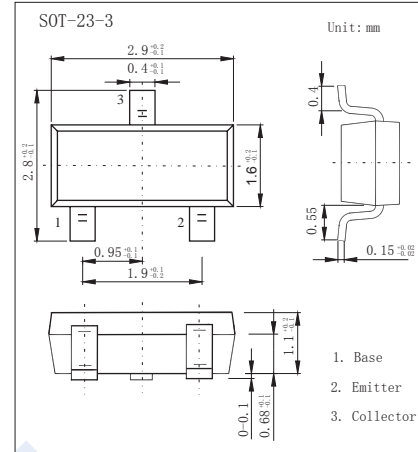


NPN Transistors

2KC1104

■ Features

- Collector Current Capability $I_c=50\text{mA}$
- Collector Emitter Voltage $V_{CEO}=11\text{V}$

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

Parameter	Symbol	Rating	Unit
Collector - Base Voltage	V_{CB0}	20	V
Collector - Emitter Voltage	V_{CE0}	11	
Emitter - Base Voltage	V_{EB0}	3	
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}	$I_c = 100 \mu\text{A}$, $I_E = 0$	20			V
Collector-emitter breakdown voltage	V_{CE0}	$I_c = 1 \text{mA}$, $R_{BE} = \infty$	11			
Emitter - base breakdown voltage	V_{EB0}	$I_E = 100 \mu\text{A}$, $I_c = 0$	3			
Collector-base cut-off current	I_{CB0}	$V_{CB} = 20 \text{V}$, $I_E = 0$			0.5	μA
Emitter cut-off current	I_{EB0}	$V_{EB} = 3 \text{V}$, $I_c = 0$			0.1	
Collector-emitter saturation voltage	$V_{CE(sat)}$	$I_c = 10 \text{mA}$, $I_B = 5 \text{mA}$			0.7	V
Base - emitter saturation voltage	$V_{BE(sat)}$	$I_c = 10 \text{mA}$, $I_B = 5 \text{mA}$			1.2	
DC current gain	h_{FE}	$V_{CE} = 10 \text{V}$, $I_c = 5 \text{mA}$	100		200	
Conversion gain	CG	$V_{CC} = 6 \text{V}$, $I_c = 2 \text{mA}$, $f = 900 \text{MHz}$, $f_{osc} = 930 \text{MHz}$ (0dBm), $f_{out} = 30 \text{MHz}$		15		dB
Noise figure	NF	$V_{CC} = 6 \text{V}$, $I_c = 2 \text{mA}$, $f = 900 \text{MHz}$, $f_{osc} = 930 \text{MHz}$ (0dBm), $f_{out} = 30 \text{MHz}$		9		
Oscillating output voltage	V_{osc}	$V_{CC} = 6 \text{V}$, $I_c = 5 \text{mA}$, $f = 930 \text{MHz}$		140		mV
Collector output capacitance	C_{ob}	$V_{CB} = 10 \text{V}$, $I_E = 0$, $f = 1 \text{MHz}$			1.5	pF
Transition frequency	f_T	$V_{CE} = 10 \text{V}$, $I_c = 10 \text{mA}$	1.4	3.5		GHz

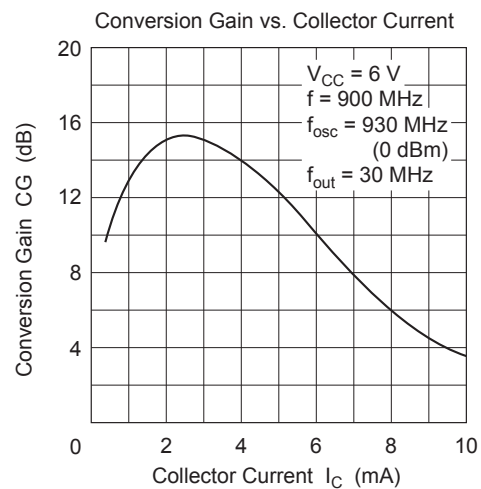
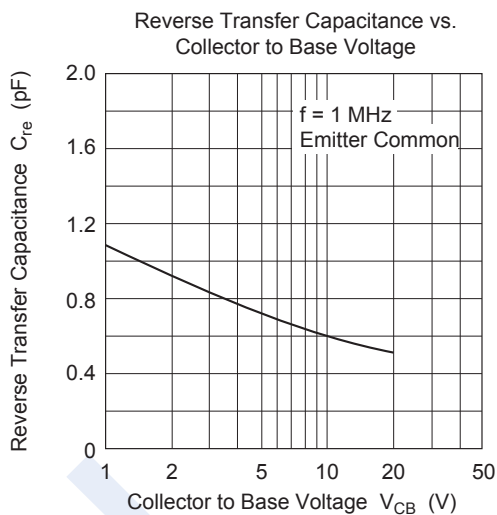
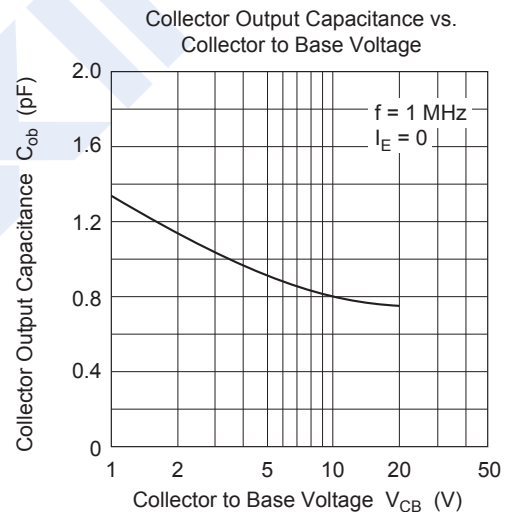
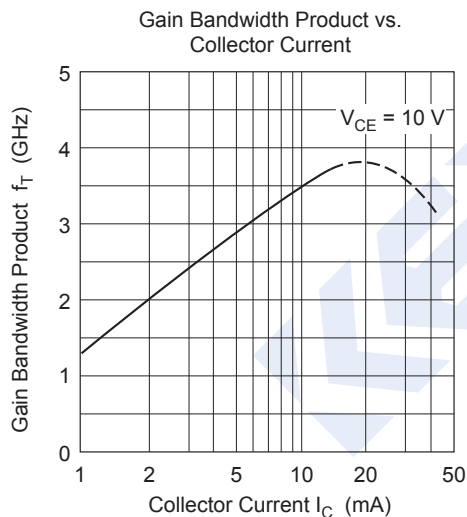
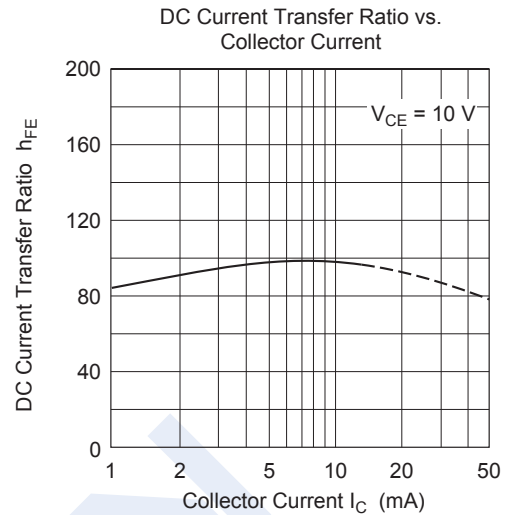
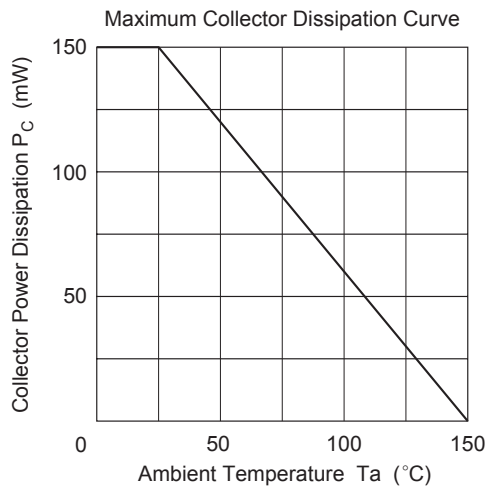
■ Marking

Marking	R04
---------	-----

NPN Transistors

2KC1104

■ Typical Characteristics



NPN Transistors

2KC1104

■ Typical Characteristics

