

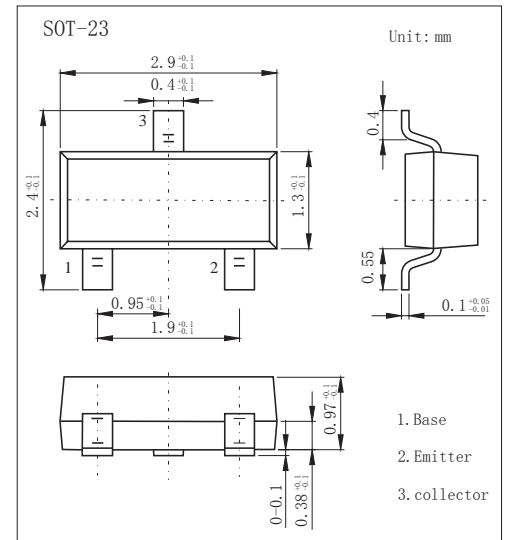
## SOT-23 Plastic-Encapsulate Transistors

### Features

- With Built-in Bias Resistors.
- Simplify Circuit Design.
- NPN Transistors

### MECHANICAL DATA

- Case style:SOT-23 molded plastic
- Mounting position:any



### MAXIMUM RATINGS AND CHARACTERISTICS

@ 25°C Ambient Temperature (unless otherwise noted)

Parameter	Symbol	Rating	Unit
Collector - Base Voltage	V <sub>CB0</sub>	30	V
Collector - Emitter Voltage	V <sub>CEO</sub>	15	
Emitter - Base Voltage	V <sub>EBO</sub>	5	
Collector Current - Continuous	I <sub>C</sub>	600	mA
Collector Power Dissipation	P <sub>C</sub>	200	mW
Junction Temperature	T <sub>J</sub>	150	°C
Storage Temperature Range	T <sub>stg</sub>	-55 to 150	

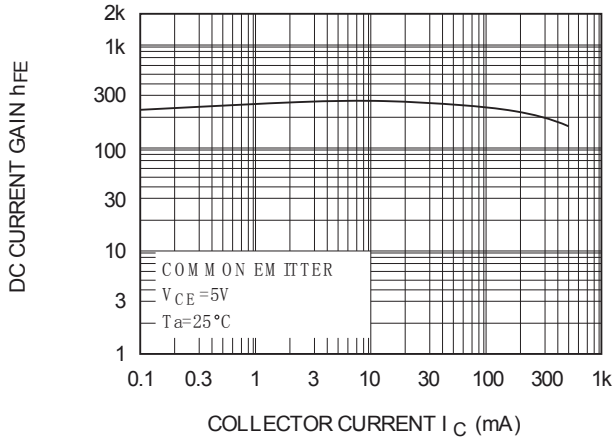
Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Collector- base breakdown voltage	V <sub>CB0</sub>	I <sub>C</sub> = 100 μA, I <sub>E</sub> = 0	30			V
Collector- emitter breakdown voltage	V <sub>CEO</sub>	I <sub>C</sub> = 1 mA, I <sub>B</sub> = 0	15			
Emitter - base breakdown voltage	V <sub>EBO</sub>	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> = 30 V, I <sub>E</sub> = 0			0.5	uA
Emitter cut-off current	I <sub>EBO</sub>	V <sub>EB</sub> = 5V, I <sub>C</sub> =0			0.1	
Collector-emitter saturation voltage	V <sub>CE(sat)</sub>	I <sub>C</sub> =50 mA, I <sub>B</sub> =2.5mA			0.08	V
Base - emitter saturation voltage	V <sub>BE(sat)</sub>	I <sub>C</sub> =50 mA, I <sub>B</sub> =2.5mA			1.2	
DC current gain	h <sub>FE</sub>	V <sub>CE</sub> = 5V, I <sub>C</sub> = 50mA	200		800	
Input Resistor	KRC231S	R <sub>i</sub>		2.2		KΩ
	KRC232S			5.6		
	KRC233S			10		
	KRC234S			4.7		
	KRC235S			6.8		
On Resistance	R <sub>on</sub>	I <sub>B</sub> = 1mA, V <sub>IN</sub> = 300mV, f=1KHz		0.6		Ω
Transition frequency	f <sub>T</sub>	V <sub>CE</sub> = 10V, I <sub>E</sub> = -50mA, f=100MHz		200		MHz

### Marking

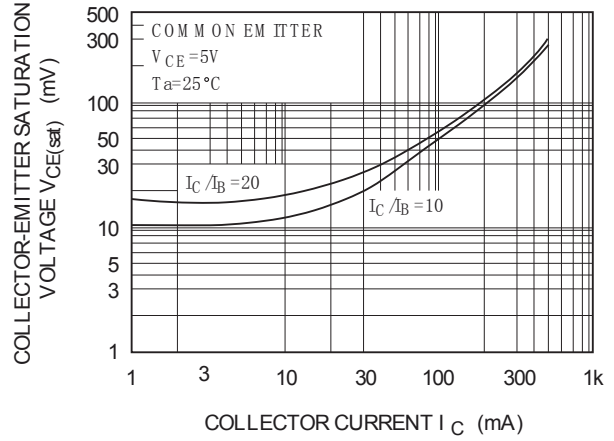
Type	KRC231S	KRC232S	KRC233S	KRC234S	KRC235S
Marking	NW	NY	NZ	NNA	NNB

# RATINGS AND CHARACTERISTIC CURVES

$h_{FE} - I_C$



$V_{CE(sat)} - I_C$



$R_{on} - I_B$