

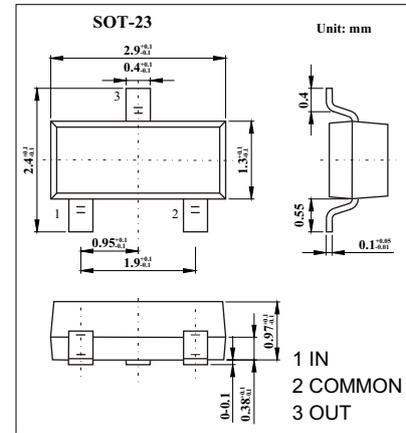
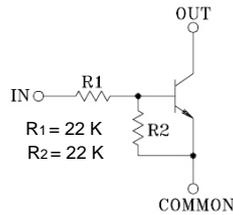
## Epitaxial Planar NPN Transistor KRC103S

### Features

With Built-in Bias Resistors.

Simplify Circuit Design.

Reduce a Quantity of Parts and Manufacturing Process.



### Absolute Maximum Ratings Ta = 25

Parameter	Symbol	Rating	Unit
Output Voltage	V <sub>O</sub>	50	V
Input Voltage	V <sub>I</sub>	40,-10	V
Output Current	I <sub>O</sub>	100	mA
Power Dissipation	P <sub>D</sub>	200	mW
Junction Temperature	T <sub>j</sub>	150	
Storage Temperature Range	T <sub>stg</sub>	50	

### Electrical Characteristics Ta = 25

Parameter	Symbol	Testconditions	Min	Typ	Max	Unit
Output Cut-off Current	I <sub>O(OFF)</sub>	V <sub>O</sub> =50V, V <sub>I</sub> =0			500	nA
DC Current Gain	G <sub>I</sub>	V <sub>O</sub> =5V, I <sub>O</sub> =10mA	70	120		
Output Voltage	V <sub>O(ON)</sub>	I <sub>O</sub> =10mA, I <sub>I</sub> =0.5mA		0.1	0.3	V
Input Voltage (ON)	V <sub>I(ON)</sub>	V <sub>O</sub> =0.2V, I <sub>O</sub> =5mA		2.1	3.0	V
Input Voltage (OFF)	V <sub>I(OFF)</sub>	V <sub>O</sub> =5V, I <sub>O</sub> =0.1mA	1.0	1.2		V
Input Current	I <sub>I</sub>	V <sub>I</sub> =5V			0.36	mA
Switching Rise Time	t <sub>r</sub>	V <sub>O</sub> =5V, V <sub>IN</sub> =5V, R <sub>L</sub> =1k		0.12		μs
Switching Storage Time	t <sub>stg</sub>			2.0		
Switching Fall Time	t <sub>f</sub>			0.35		
Input Resistance	R <sub>I</sub>			22		K
Transition Frequency	f <sub>T</sub> *	V <sub>O</sub> =10V, I <sub>O</sub> =5mA		200		MHz

\* Characteristic of Transistor Only.

### Marking

Marking	NC

### KRC103S

■ Typical Characteristics

