

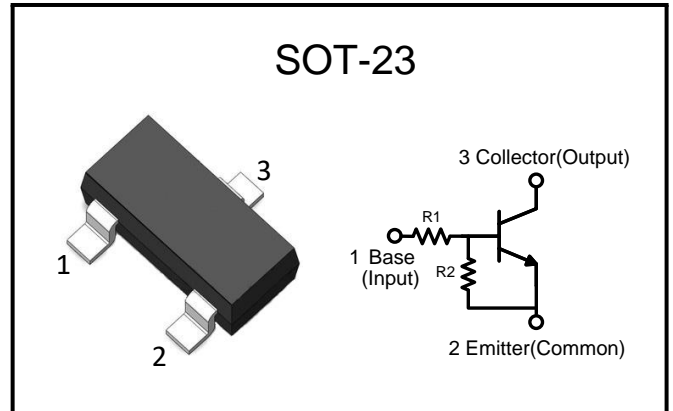
# KRC106S

NPN Digital Transistor

## Features

- for switching
- interface circuit
- drive circuit applications

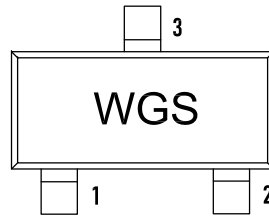
## Package



## Resistor Values/Marking Code

Type	R1 (K)	R2 (K)	Marking
KRC106S	4.7	47	WGS

## Marking



## Ordering information

Order code	Package	Marking	Base qty	Delivery mode
KRC106S	SOT-23	WGS	3K	Tape and reel

## Absolute Maximum Ratings (@T<sub>A</sub>=25°C unless otherwise noted)

Symbol	Parameter	Value	Unit
V <sub>CBO</sub>	Collector Base Voltage	50	V
V <sub>CEO</sub>	Collector Emitter Voltage	50	V
I <sub>C</sub>	Collector Current	100	mA
P <sub>tot</sub>	Total Power Dissipation	200	mW
T <sub>J</sub>	Operating Junction	150	°C
T <sub>stg</sub>	Storage Temperature Range	-55 to + 150	°C



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**Electrical Characteristics @ $T_A=25^{\circ}\text{C}$  unless otherwise noted**

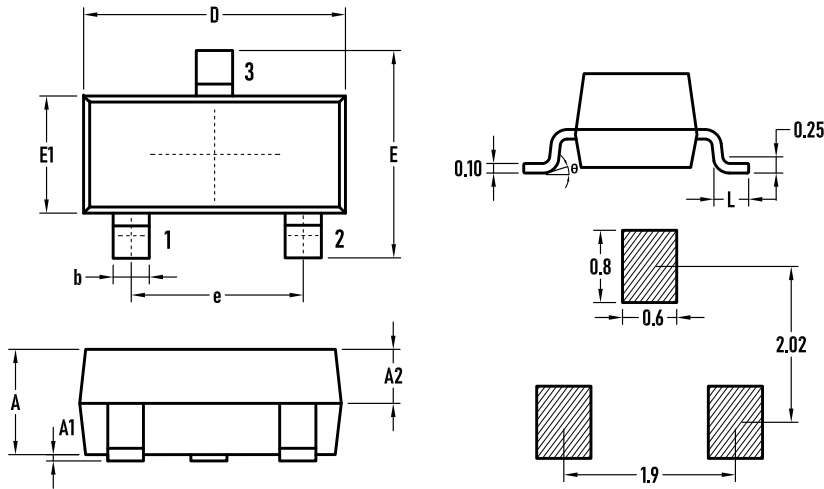
Symbol	Parameter	Test Condition	Min.	Typ.	Max.	Unit
$h_{FE}$	DC Current Gain	$V_{CE} = 10V, I_C=5mA$	80	–	–	
$I_{CBO}$	Collector Base Cutoff Current	$V_{CB} = 50V$	–	–	100	nA
$I_{CEO}$	Collector Emitter Cutoff Current	$V_{CE} = 50V$	–	–	500	nA
$I_{EBO}$	Emitter Base Cutoff Current	$V_{EB} = 6V$	–	–	0.18	mA
$V_{CBO(BR)}$	Collector Base Breakdown Voltage	$I_C = 10\mu A$	50	–	–	V
$V_{CEO(BR)}$	Collector Emitter Breakdown Voltage	$I_C = 2mA$	50	–	–	V
$V_{CE(sat)}$	Collector Emitter Saturation Voltage	$I_C = 10mA, I_B = 0.3mA$	–	–	0.25	V
		$I_C = 10mA, I_B = 5mA$	–	–	0.25	
		$I_C = 10mA, I_B = 1mA$	–	–	0.25	
$V_{OL}$	Output Voltage (on)	$V_{CC} = 5V, V_B = 2.5V, R_L = 1K\Omega$	–	–	0.2	V
		$V_{CC} = 5V, V_B = 3.5V, R_L = 1K\Omega$	–	–	0.2	
		$V_{CC} = 5V, V_B = 5V, R_L = 1K\Omega$	–	–	0.2	
$V_{OH}$	Output Voltage (off)	$V_{CC} = 5V, V_B = 0.5V, R_L = 1K\Omega$	4.9	–	–	V
		$V_{CC} = 5V, V_B = 0.05V, R_L = 1K\Omega$	4.9	–	–	
		$V_{CC} = 5V, V_B = 0.25V, R_L = 1K\Omega$	4.9	–	–	
$R_1$	Input Resistor	–	15.4	–	28.6	K $\Omega$
$R_1/R_2$	Resistor Ratio	–	0.055	–	0.185	–



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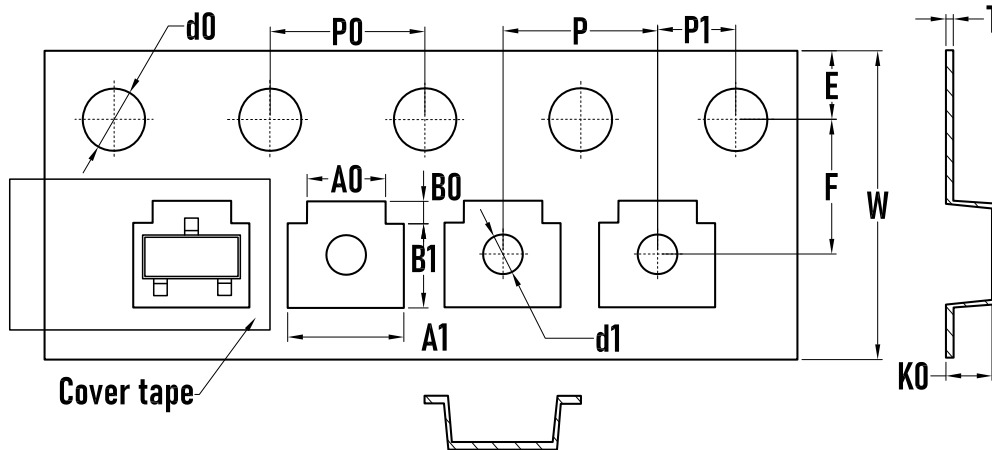
NPN Digital Transistor

## Outline Drawing - SOT-23



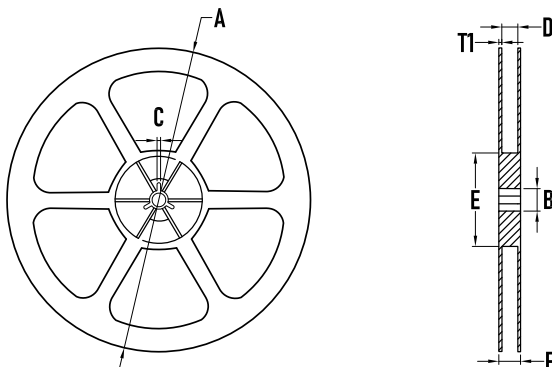
SYMBOL	MILLIMETER		
	MIN.	Typ.	MAX.
A	0.95	1.00	—
A1	0.02	0.06	0.10
A2	—	0.60	—
D	2.85	2.90	2.95
b	0.37	0.40	0.43
E	2.35	2.40	2.45
E1	1.25	1.30	1.35
e	1.85	1.90	1.95
L	0.35	0.40	0.48
$\theta$	0	—	6°

## Packaging Tape - SOT-23



SYMBOL	MILLIMETER
A0	2.10±0.10
A1	3.10±0.10
B0	0.65±0.10
B1	2.75±0.10
d0	1.55±0.10
d1	1.00±0.05
E	1.75±0.10
F	3.50±0.10
K0	1.10±0.10
P	4.00±0.10
P0	4.00±0.10
P1	2.00±0.10
W	8.00±0.30
T	0.20 ±0.05

## Packaging Reel



SYMBOL	MILLIMETER
A	177.8±0.2
B	3.1
C	13.50
D	9.6±0.3
E	75±0.2
F	12.3±0.3
T1	1.0±0.2
Quantity	3000PCS

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Specifications are subject to change without notice.

Please refer to <http://www.born-tw.com> for current information.

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