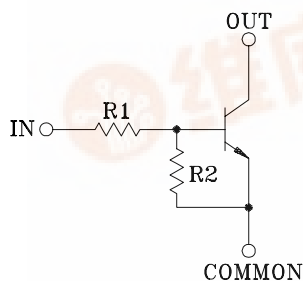


SWITCHING APPLICATION,  
INTERFACE CIRCUIT AND DRIVER CIRCUIT APPLICATION

### FEATURES

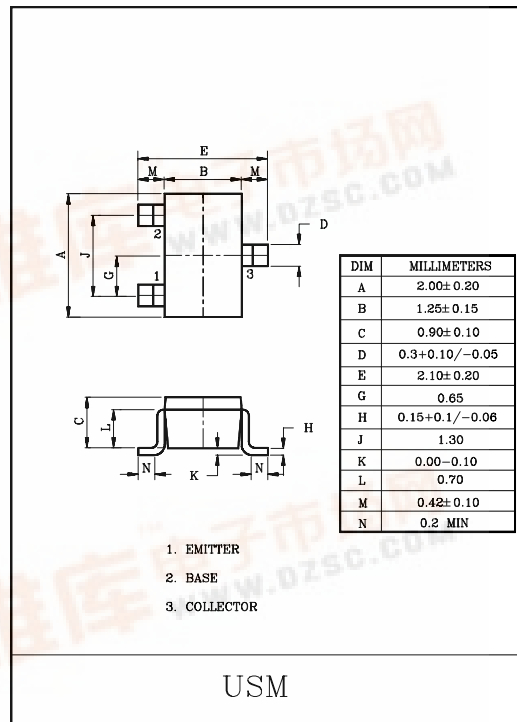
- With Built-in Bias Resistors.
- Simplify Circuit Design.
- Reduce a Quantity of Parts and Manufacturing Process.

### EQUIVALENT CIRCUIT



### BIAS RESISTOR VALUES

TYPE NO.	R1(kΩ)	R2(kΩ)
KRC416	1	10
KRC417	2.2	2.2
KRC418	2.2	10
KRC419	4.7	10
KRC420	10	4.7
KRC421	47	10
KRC422	100	100



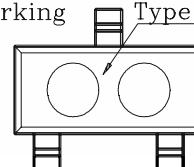
### MAXIMUM RATING (Ta=25°C)

CHARACTERISTIC	TYPE	SYMBOL	RATING	UNIT
Output Voltage	KRC416~422	$V_o$	50	V
	KRC416		10, -5	
	KRC417		12, -10	
	KRC418		12, -5	
	KRC419		20, -7	
	KRC420		30, -10	
	KRC421		40, -15	
	KRC422		40, -10	
Input Voltage	KRC422	$V_i$	40, -10	V
Output Current		$I_o$	100	mA
Power Dissipation		$P_d$	100	mW
Junction Temperature		$T_j$	150	°C
Storage Temperature Range	KRC416~422	$T_{stg}$	-55~150	°C

### MARK SPEC

TYPE	KRC416	KRC417	KRC418	KRC419	KRC420	KRC421	KRC422
MARK	N2	N4	N5	N6	N7	N8	N9

Marking Type Name



# KRC416 ~ KRC422

## ELECTRICAL CHARACTERISTICS (T<sub>a</sub>=25°C)

CHARACTERISTIC		SYMBOL	TEST CONDITION	MIN.	TYP.	MAX.	UNIT
Output Cut-off Current	KRC416~422	I <sub>O(OFF)</sub>	V <sub>O</sub> =50V, V <sub>I</sub> =0	-	-	500	nA
DC Current Gain	KRC416	G <sub>I</sub>	V <sub>O</sub> =5V, I <sub>O</sub> =5mA	33	-	-	
	KRC417		V <sub>O</sub> =5V, I <sub>O</sub> =20mA	20	-	-	
	KRC418		V <sub>O</sub> =5V, I <sub>O</sub> =10mA	33	-	-	
	KRC419		V <sub>O</sub> =5V, I <sub>O</sub> =10mA	30	-	-	
	KRC420		V <sub>O</sub> =5V, I <sub>O</sub> =10mA	24	-	-	
	KRC421		V <sub>O</sub> =5V, I <sub>O</sub> =5mA	33	-	-	
	KRC422		V <sub>O</sub> =5V, I <sub>O</sub> =5mA	62	-	-	
Output Voltage	KRC416	V <sub>O(ON)</sub>	I <sub>O</sub> =10mA, I <sub>I</sub> =0.5mA	-	-	0.3	V
	KRC417		I <sub>O</sub> =10mA, I <sub>I</sub> =0.5mA	-	0.1	0.3	
	KRC418		I <sub>O</sub> =10mA, I <sub>I</sub> =0.5mA	-	-	0.3	
	KRC419		I <sub>O</sub> =10mA, I <sub>I</sub> =0.5mA	-	0.1	0.3	
	KRC420		I <sub>O</sub> =10mA, I <sub>I</sub> =0.5mA	-	0.1	0.3	
	KRC421		I <sub>O</sub> =10mA, I <sub>I</sub> =0.5mA	-	0.1	0.3	
	KRC422		I <sub>O</sub> =5mA, I <sub>I</sub> =0.25mA	-	0.1	0.3	
Input Voltage (ON)	KRC416	V <sub>I(ON)</sub>	V <sub>O</sub> =0.3V, I <sub>O</sub> =20mA	-	0.98	3	V
	KRC417		V <sub>O</sub> =0.3V, I <sub>O</sub> =20mA	-	1.83	3	
	KRC418		V <sub>O</sub> =0.3V, I <sub>O</sub> =20mA	-	1.22	3	
	KRC419		V <sub>O</sub> =0.3V, I <sub>O</sub> =20mA	-	1.76	2.5	
	KRC420		V <sub>O</sub> =0.3V, I <sub>O</sub> =2mA	-	2	3	
	KRC421		V <sub>O</sub> =0.3V, I <sub>O</sub> =2mA	-	3.9	5	
	KRC422		V <sub>O</sub> =0.3V, I <sub>O</sub> =1mA	-	1.64	3	
Input Voltage (OFF)	KRC416	V <sub>I(OFF)</sub>	V <sub>CC</sub> =5V, I <sub>O</sub> =100μA	0.3	0.63	-	V
	KRC417			0.5	1.15	-	
	KRC418			0.3	0.67	-	
	KRC419			0.3	0.82	-	
	KRC420			0.8	1.68	-	
	KRC421			1	3.09	-	
	KRC422			0.5	1.17	-	
Transition Frequency	KRC416~422	f <sub>T</sub> *	V <sub>O</sub> =10V, I <sub>O</sub> =5mA	-	250	-	MHz
Input Current	KRC416	I <sub>I</sub>	V <sub>I</sub> =5V	-	-	7.2	mA
	KRC417			-	-	3.8	
	KRC418			-	-	3.8	
	KRC419			-	-	1.8	
	KRC420			-	-	0.88	
	KRC421			-	-	0.16	
	KRC422			-	-	0.15	

Note : \*Characteristic of Transistor Only