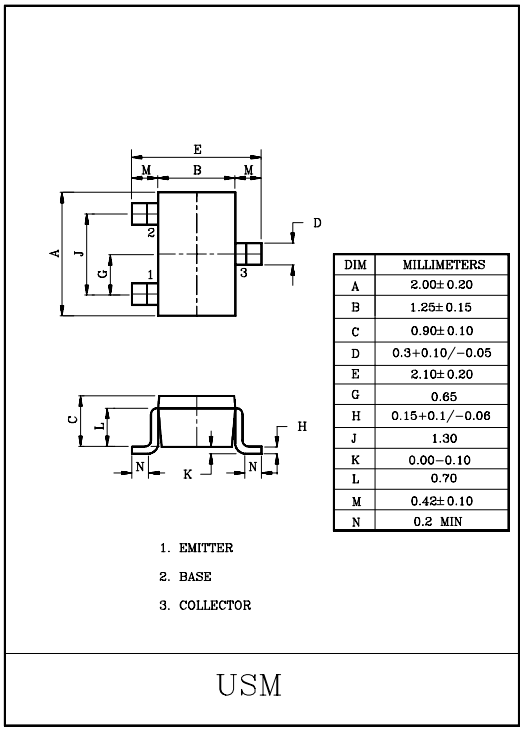
KRA316~ KRA322

EPITAXIAL PLANAR PNP TRANSISTOR

SWITCHING APPLICATION.
INTERFACE CIRCUIT AND DRIVER CIRCUIT APPLICATION

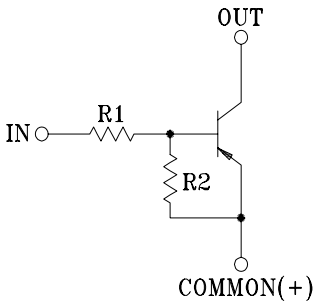
FEATURES
- With Built-in Bias Resistors.
- Simplify Circuit Design.
- Reduce a Quantity of Parts and Manufacturing Process.



DIM	MILLIMETERS
A	2.00±0.20
B	1.25±0.15
C	0.90±0.10
D	0.3+0.10/−0.05
E	2.10±0.20
G	0.65
H	0.15+0.1/−0.06
J	1.30
K	0.00−0.10
L	0.70
M	0.42±0.10
N	0.2 MIN

USM

EQUIVALENT CIRCUIT



BIAS RESISTOR VALUES

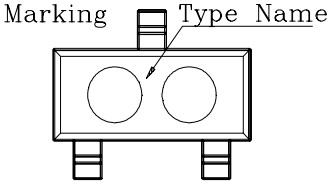
TYPE NO.	R1(kΩ)	R2(kΩ)
KRA316	1	10
KRA317	2.2	2.2
KRA318	2.2	10
KRA319	4.7	10
KRA320	10	4.7
KRA321	47	10
KRA322	100	100

MAXIMUM RATING (Ta=25℃)

CHARACTERISTIC		SYMBOL	RATING	UNIT
Output Voltage	KRA316~322	V_O	-50	V
	KRA316		-10, 5	
	KRA317		-12, 10	
	KRA318		-12, 5	
	KRA319		-20, 7	
	KRA320		-30, 10	
	KRA321		-40, 15	
Input Voltage	KRA322	V_I	-40, 10	V
Output Current		I_O	-100	mA
Power Dissipation		P_D	100	mW
Junction Temperature		T_j	150	℃
Storage Temperature Range	KRA316~322	T_{stg}	-55~150	℃

MARK SPEC

TYPE	KRA316	KRA317	KRA318	KRA319	KRA320	KRA321	KRA322
MARK	P2	P4	P5	P6	P7	P8	P9



ELECTRICAL CHARACTERISTICS (T_a=25℃)

CHARACTERISTIC		SYMBOL	TEST CONDITION	MIN.	TYP.	MAX.	UNIT
Output Cut-off Current	KRA316~322	$I_{O(OFF)}$	V_O=-50V, V_I=0	-	-	-500	nA
DC Current Gain	KRA316	G_I	V_O=-5V, I_O=-5mA	33	-	-	
	KRA317		V_O=-5V, I_O=-20mA	20	-	-	
	KRA318		V_O=-5V, I_O=-10mA	33	-	-	
	KRA319		V_O=-5V, I_O=-10mA	30	-	-	
	KRA320		V_O=-5V, I_O=-10mA	24	-	-	
	KRA321		V_O=-5V, I_O=-5mA	33	-	-	
	KRA322		V_O=-5V, I_O=-5mA	62	-	-	
Output Voltage	KRA316	$V_{O(ON)}$	I_O=-10mA, I_I=-0.5mA	-	-	-0.3	V
	KRA317		I_O=-10mA, I_I=-0.5mA	-	-0.1	-0.3	
	KRA318		I_O=-10mA, I_I=-0.5mA	-	-	-0.3	
	KRA319		I_O=-10mA, I_I=-0.5mA	-	-0.1	-0.3	
	KRA320		I_O=-10mA, I_I=-0.5mA	-	-0.1	-0.3	
	KRA321		I_O=-10mA, I_I=-0.5mA	-	-0.1	-0.3	
	KRA322		I_O=-5mA, I_I=-0.25mA	-	-0.1	-0.3	
Input Voltage (ON)	KRA316	$V_{I(ON)}$	V_O=-0.3V, I_O=-20mA	-	-0.98	-3	V
	KRA317		V_O=-0.3V, I_O=-20mA	-	-1.83	-3	
	KRA318		V_O=-0.3V, I_O=-20mA	-	-1.22	-3	
	KRA319		V_O=-0.3V, I_O=-20mA	-	-1.76	-2.5	
	KRA320		V_O=-0.3V, I_O=-2mA	-	-2	-3	
	KRA321		V_O=-0.3V, I_O=-2mA	-	-3.9	-5	
	KRA322		V_O=-0.3V, I_O=-1mA	-	-1.64	-3	
Input Voltage (OFF)	KRA316	$V_{I(OFF)}$	V_{CC}=-5V, I_O=-100μA	-0.3	-0.63	-	V
	KRA317			-0.5	-1.15	-	
	KRA318			-0.3	-0.67	-	
	KRA319			-0.3	-0.82	-	
	KRA320			-0.8	-1.68	-	
	KRA321			-1	-3.09	-	
	KRA322			-0.5	-1.17	-	
Transition Frequency	KRA316~322	f_T*	V_O=-10V, I_O=-5mA	-	250	-	MHz
Input Current	KRA316	I_I	V_I=-5V	-	-	-7.2	mA
	KRA317			-	-	-3.8	
	KRA318			-	-	-3.8	
	KRA319			-	-	-1.8	
	KRA320			-	-	-0.88	
	KRA321			-	-	-0.16	
	KRA322			-	-	-0.15	

Note : *Characteristic of Transistor Only