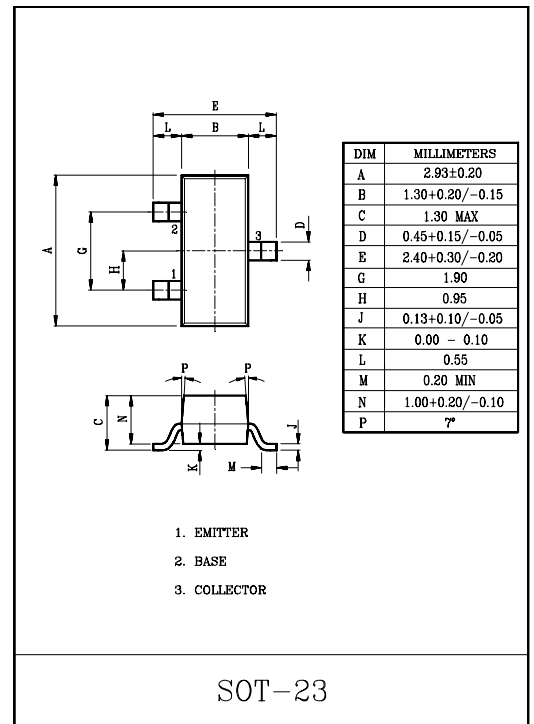
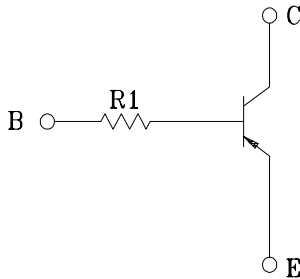


SWITCHING APPLICATION.
INTERFACE CIRCUIT AND DRIVER CIRCUIT APPLICATION.

FEATURES

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

EQUIVALENT CIRCUIT



MAXIMUM RATINGS (Ta=25°C)

CHARACTERISTIC	SYMBOL	RATING	UNIT
Collector-Base Voltage	V _{CB0}	-50	V
Collector-Emitter Voltage	V _{CE0}	-50	V
Emitter-Base Voltage	V _{EB0}	-5	V
Collector Current	I _C	-100	mA

CHARACTERISTIC	SYMBOL	RATING	UNIT
Collector Power Dissipation	P _C	200	mW
Junction Temperature	T _j	150	°C
Storage Temperature Range	T _{stg}	-55~150	°C

ELECTRICAL CHARACTERISTICS (Ta=25°C)

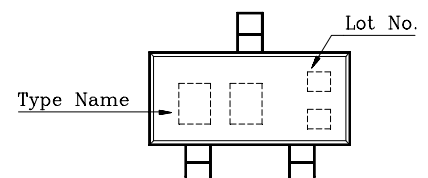
CHARACTERISTIC	SYMBOL	TEST CONDITION	MIN.	TYP.	MAX.	UNIT
Collector Cut-off Current	I _{CB0}	V _{CB} =-50V, I _E =0	-	-	-100	nA
Emitter Cut-off Current	I _{EB0}	V _{EB} =-5V, I _C =0	-	-	-100	nA
DC Current Gain	h _{FE}	V _{CE} =-5V, I _C =-1mA	120	-	-	
Collector-Emitter Saturation Voltage	V _{CE(sat)}	I _C =-10mA, I _B =-0.5mA	-	-0.1	-0.3	V
Transition Frequency	f _T *	V _{CE} =-10V, I _C =-5mA	-	250	-	MHz
Input Resistor	KRA110S	R _i	-	4.7	-	kΩ
	KRA111S		-	10	-	
	KRA112S		-	100	-	
	KRA113S		-	22	-	
	KRA114S		-	47	-	

Note : *Characteristic of Transistor Only

MARK SPEC

TYPE	KRA110S	KRA111S	KRA112S	KRA113S	KRA114S
MARK	PK	PM	PN	PO	PP

Marking



KRA110S ~ KRA114S

ELECTRICAL CHARACTERISTICS (Ta=25°C)

CHARACTERISTIC		SYMBOL	TEST CONDITION	MIN.	TYP.	MAX.	UNIT	
Switching Time	Rise Time	KRA110S	$V_O = -5V$ $V_{IN} = -5V$ $R_L = 1k\Omega$	-	0.2	-	μS	
		KRA111S		-	0.065	-		
		KRA112S		-	0.4	-		
		KRA113S		-	0.1	-		
		KRA114S		-	0.15	-		
	Storage Time	KRA110S		t_{stg}	-	2.0		-
		KRA111S			-	1.7		-
		KRA112S			-	3.0		-
		KRA113S			-	2.0		-
		KRA114S			-	1.5		-
	Fall Time	KRA110S		t_f	-	0.3		-
		KRA111S			-	0.3		-
		KRA112S			-	1.7		-
		KRA113S			-	0.8		-
		KRA114S			-	1.5		-