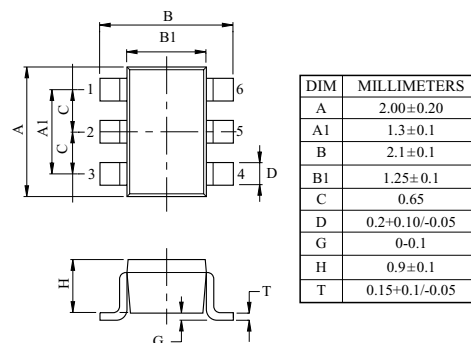
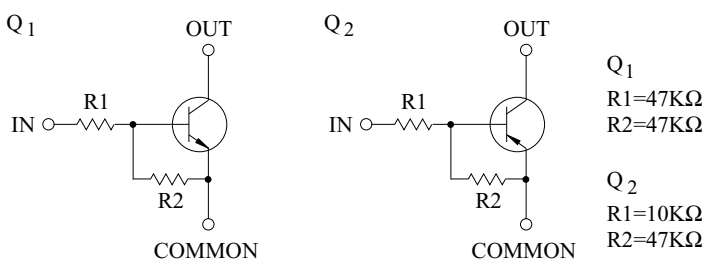


SWITCHING APPLICATION.
INTERFACE CIRCUIT AND DRIVER CIRCUIT APPLICATION.

FEATURES

- Including two devices in US6.
(Ultra Super mini type with 6 leads.)
- With Built-in bias resistors.
- Simplify circuit design.
- Reduce a quantity of parts and manufacturing process.
- Suffix U : Qualified to AEC-Q101.
ex) KRX209U-RTK/HU

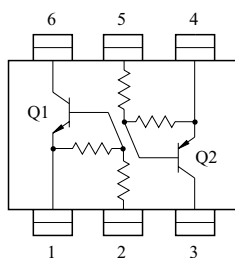
EQUIVALENT CIRCUIT



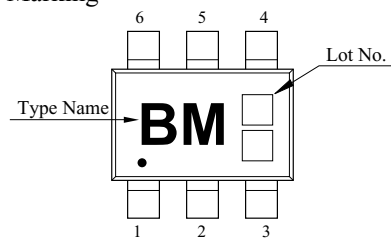
1. Q₁ COMMON (EMITTER)
2. Q₁ IN (BASE)
3. Q₂ OUT (COLLECTOR)
4. Q₂ COMMON (EMITTER)
5. Q₂ IN (BASE)
6. Q₁ OUT (COLLECTOR)

US6

EQUIVALENT CIRCUIT (TOP VIEW)



Marking



Q1 MAXIMUM RATING (Ta=25 °C)

CHARACTERISTIC	SYMBOL	RATING	UNIT
Output Voltage	V _O	50	V
Input Voltage	V _I	40, -10	V
Output Current	I _O	100	mA

Q2 MAXIMUM RATING (Ta=25 °C)

CHARACTERISTIC	SYMBOL	RATING	UNIT
Output Voltage	V _O	-50	V
Input Voltage	V _I	-30, 6	V
Output Current	I _O	-100	mA

Q1, Q2 MAXIMUM RATING (Ta=25 °C)

CHARACTERISTIC	SYMBOL	RATING	UNIT
Power Dissipation	P _D *	200	mW
Junction Temperature	T _j	-55~150	
Storage Temperature Range	T _{stg}	-55~150	

* Total Rating.

KRX209U

Q1 ELECTRICAL CHARACTERISTICS (Ta=25)

CHARACTERISTIC	SYMBOL	TEST CONDITION	MIN.	TYP.	MAX.	UNIT.
Output Cut-off Current	$I_{O(OFF)}$	$V_O=50V, V_I=0$	-	-	500	nA
DC Current Gain	G_I	$V_O=5V, I_O=10mA$	80	200	-	
Output Voltage	$V_{O(ON)}$	$I_O=10mA, I_I=0.5mA$	-	0.1	0.3	V
Input Voltage (ON)	$V_{I(ON)}$	$V_O=0.2V, I_O=5mA$	-	2.8	5.0	V
Input Voltage (OFF)	$V_{I(OFF)}$	$V_O=5V, I_O=0.1mA$	1.0	1.2	-	V
Transition Frequency	f_T^*	$V_O=10V, I_O=5mA$	-	200	-	MHz
Input Current	I_I	$V_I=5V$	-	-	0.18	mA
Input Resistor	R1	-	32.9	47	61.1	kΩ
Resistor Ratio	R_2/R_1	-	0.8	1	1.2	-

Note : * Characteristic of Transistor Only.

Q2 ELECTRICAL CHARACTERISTICS (Ta=25)

CHARACTERISTIC	SYMBOL	TEST CONDITION	MIN.	TYP.	MAX.	UNIT.
Output Cut-off Current	$I_{O(OFF)}$	$V_O=-50V, V_I=0$	-	-	-500	nA
DC Current Gain	G_I	$V_O=-5V, I_O=-10mA$	80	150	-	
Output Voltage	$V_{O(ON)}$	$I_O=-10mA, I_I=-0.5mA$	-	-0.1	-0.3	V
Input Voltage (ON)	$V_{I(ON)}$	$V_O=-0.2V, I_O=-5mA$	-	-1.2	-1.8	V
Input Voltage (OFF)	$V_{I(OFF)}$	$V_O=-5V, I_O=-0.1mA$	-0.5	-0.75	-	V
Transition Frequency	f_T^*	$V_O=-10V, I_O=-5mA$	-	200	-	MHz
Input Current	I_I	$V_I=-5V$	-	-	-0.88	mA
Input Resistor	R1	-	7	10	13	kΩ
Resistor Ratio	R_2/R_1	-	3.7	4.7	5.7	-

Note : * Characteristic of Transistor Only.

