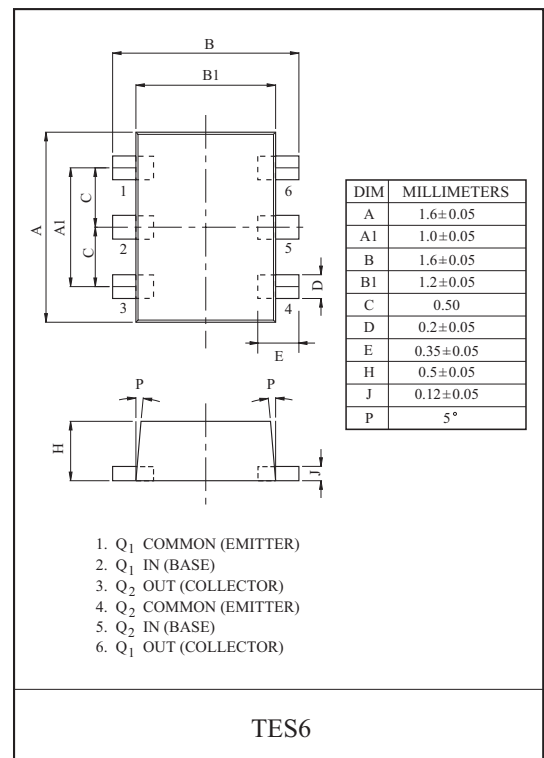
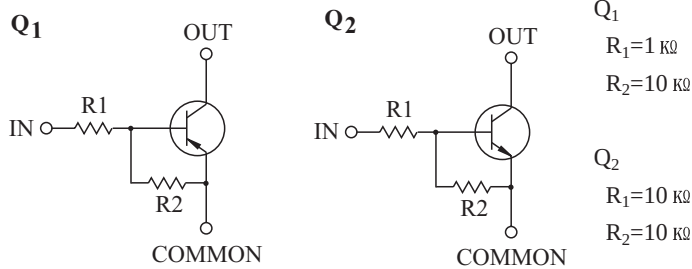


SWITCHING APPLICATION.
INTERFACE CIRCUIT AND DRIVER CIRCUIT APPLICATION.

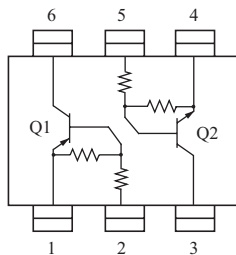
FEATURES

- Including two devices in TES6.
- With Built-in bias resistors.
- Simplify circuit design.
- Reduce a quantity of parts and manufacturing process.
- Suffix U : Qualified to AEC-Q101.
ex) KRX210E-RTK/HU

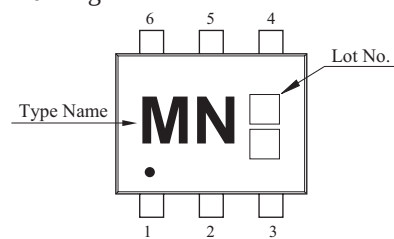
EQUIVALENT CIRCUIT



EQUIVALENT CIRCUIT (TOP VIEW)



Marking



Q1 MAXIMUM RATING (Ta=25 °C)

CHARACTERISTIC	SYMBOL	RATING	UNIT
Output Voltage	V _O	-30	V
Input Voltage	V _I	-30, 5	V
Output Current	I _O	-500	mA

Q2 MAXIMUM RATING (Ta=25 °C)

CHARACTERISTIC	SYMBOL	RATING	UNIT
Output Voltage	V _O	50	V
Input Voltage	V _I	30, -10	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	°C
Storage Temperature Range	T _{stg}	-55~150	°C

* Total Rating.

KRX210E

Q1 ELECTRICAL CHARACTERISTICS (Ta=25 °C)

CHARACTERISTIC	SYMBOL	TEST CONDITION	MIN.	TYP.	MAX.	UNIT.
Output Cut-off Current	$I_{O(OFF)}$	$V_O = -30V, V_I = 0$	-	-	-100	nA
DC Current Gain	G_I	$V_O = -5V, I_O = -100\text{ mA}$	140	-	-	
Output Voltage	$V_{O(ON)}$	$I_O = -50\text{ mA}, I_I = -2.5\text{ mA}$	-	-0.07	-0.3	V
Input Voltage (ON)	$V_{I(ON)}$	$V_O = -0.3V, I_O = -20\text{ mA}$	-	-	-2.5	V
Input Voltage (OFF)	$V_{I(OFF)}$	$V_O = -5V, I_O = -0.1\text{ mA}$	-0.3	-	-	V
Transition Frequency	f_T^*	$V_O = -10V, I_O = -5\text{ mA}, f = 100\text{ MHz}$	-	260	-	MHz
Input Current	I_I	$V_I = -5V$	-	-	-6.4	mA
Input resistance	R_I	-	0.7	1	1.3	KΩ
Resistance Ratio	R_2/R_1	-	8	10	12	-

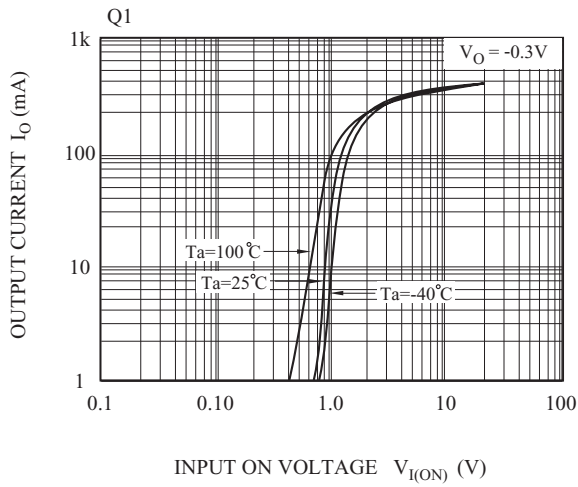
Note : * Characteristic of Transistor Only.

Q2 ELECTRICAL CHARACTERISTICS (Ta=25 °C)

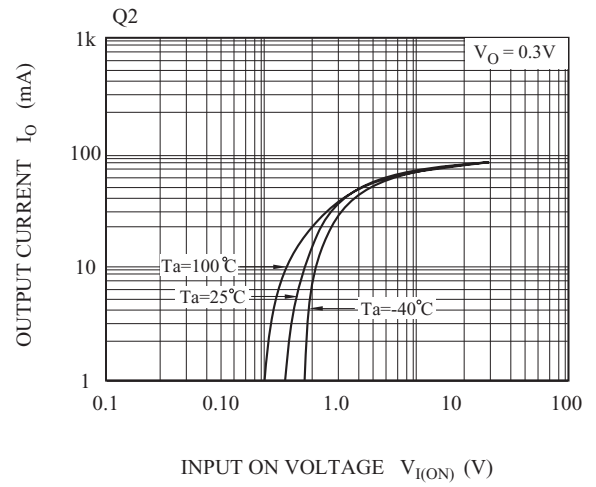
CHARACTERISTIC	SYMBOL	TEST CONDITION	MIN.	TYP.	MAX.	UNIT.
Output Cut-off Current	$I_{O(OFF)}$	$V_O = 50V, V_I = 0$	-	-	500	nA
DC Current Gain	G_I	$V_O = 5V, I_O = 10\text{ mA}$	50	80	-	
Output Voltage	$V_{O(ON)}$	$I_O = 10\text{ mA}, I_I = 0.5\text{ mA}$	-	0.1	0.3	V
Input Voltage (ON)	$V_{I(ON)}$	$V_O = 0.2V, I_O = 5\text{ mA}$	-	1.8	2.4	V
Input Voltage (OFF)	$V_{I(OFF)}$	$V_O = 5V, I_O = 0.1\text{ mA}$	1.0	1.2	-	V
Transition Frequency	f_T^*	$V_O = 10V, I_O = 5\text{ mA}$	-	200	-	MHz
Input Current	I_I	$V_I = 5V$	-	-	0.88	mA
Input resistance	R_I	-	7	10	13	KΩ
Resistance Ratio	R_2/R_1	-	0.8	1	1.2	-

Note : * Characteristic of Transistor Only.

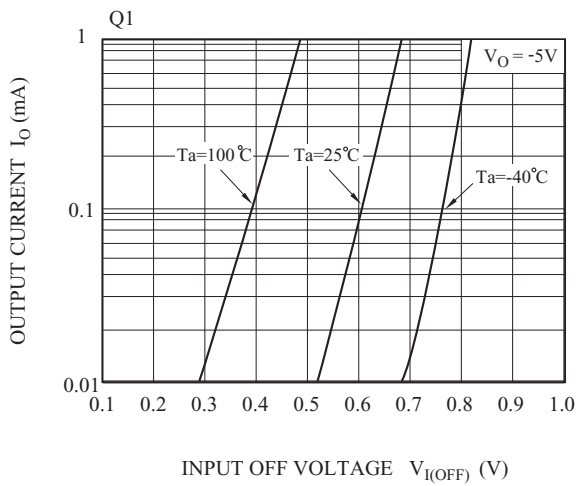
$I_O - V_{I(ON)}$



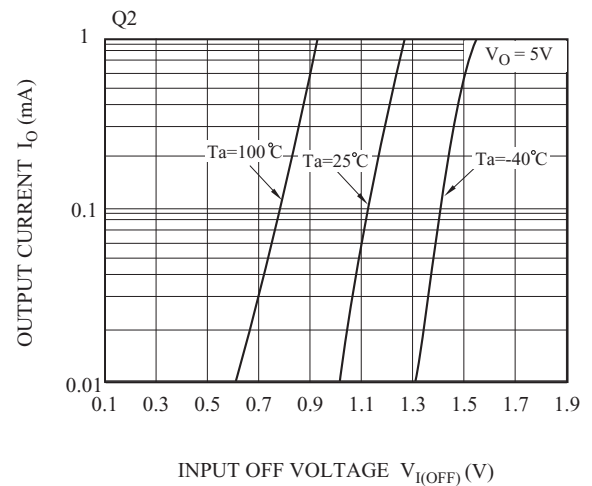
$I_O - V_{I(ON)}$



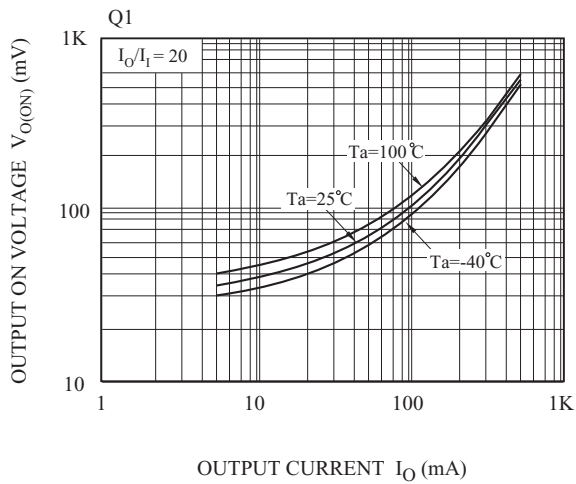
$I_O - V_{I(OFF)}$



$I_O - V_{I(OFF)}$



$V_{O(ON)} - I_O$



$V_{O(ON)} - I_O$

