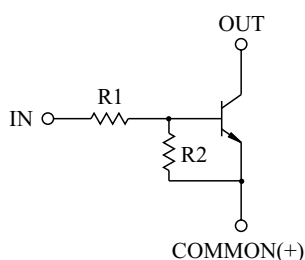


HIGH CURRENT SWITCHING APPLICATION.
INTERFACE CIRCUIT AND DRIVER CIRCUIT APPPLICATION.

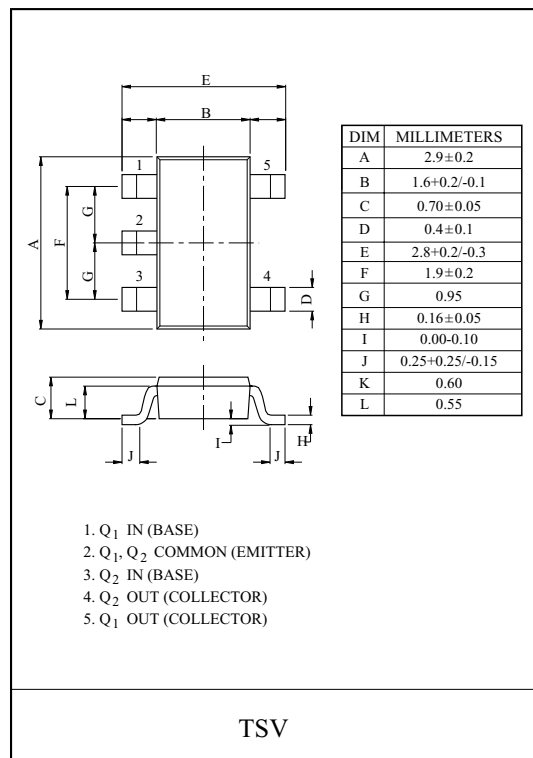
FEATURES

- With Built-in Bias Resistors.
- Simplify Circuit Design.
- Reduce a Quantity of Parts and Manufacturing Process.
- High Output Current : 800mA.
- Suffix U : Qualified to AEC-Q101.
ex) KRC642T-RTK/HU

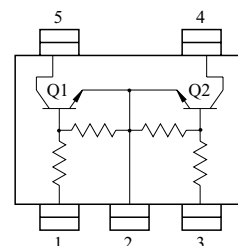
EQUIVALENT CIRCUIT



TYPE NO.	R1 (k Ω)	R2 (k Ω)
KRC641T	1	1
KRC642T	2.2	2.2
KRC643T	4.7	4.7
KRC644T	10	10
KRC645T	1	10
KRC646T	2.2	10



EQUIVALENT CIRCUIT (TOP VIEW)



MAXIMUM RATING (Ta=25 °C)

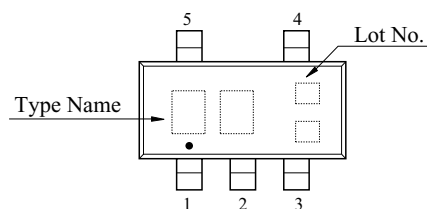
CHARACTERISTIC		SYMBOL	RATING	UNIT
Output Voltage	KRC641T~646T	V_O	50	V
Input Voltage	KRC641T	V_I	10, -10	V
	KRC642T		12, -10	
	KRC643T		20, -10	
	KRC644T		30, -10	
	KRC645T		10, -5	
	KRC646T		12, -6	
Output Current	KRC641T~646T	I_O	800	mA
Power Dissipation		P_D *	0.9	W
Junction Temperature		T_j	-55~150	
Storage Temperature Range		T_{stg}	-55~150	

* Package mounted on a ceramic board (600mm² × 0.8mm)

MARK SPEC

TYPE	KRC641T	KRC642T	KRC643T	KRC644T	KRC645T	KRC646T
MARK	NA	NB	NC	ND	NE	NF

Marking



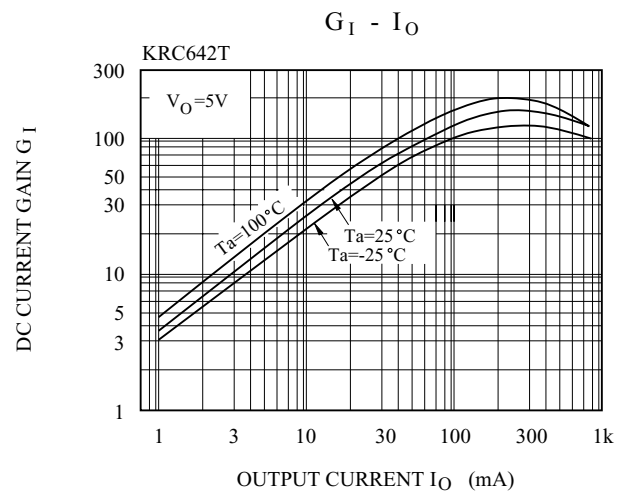
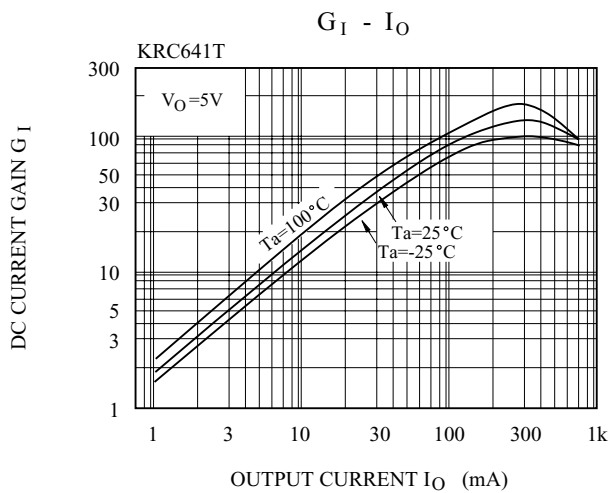
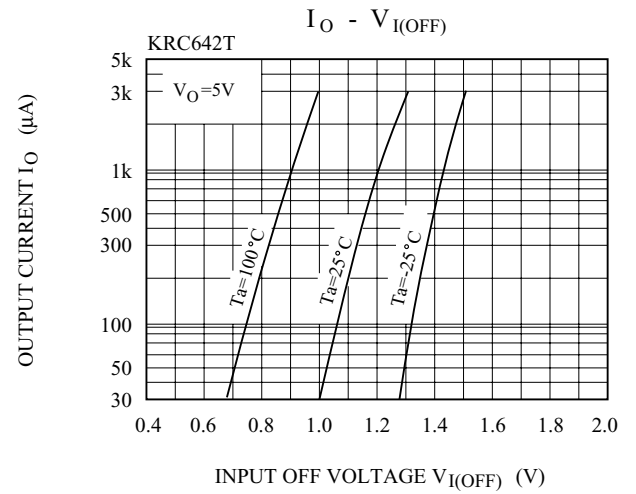
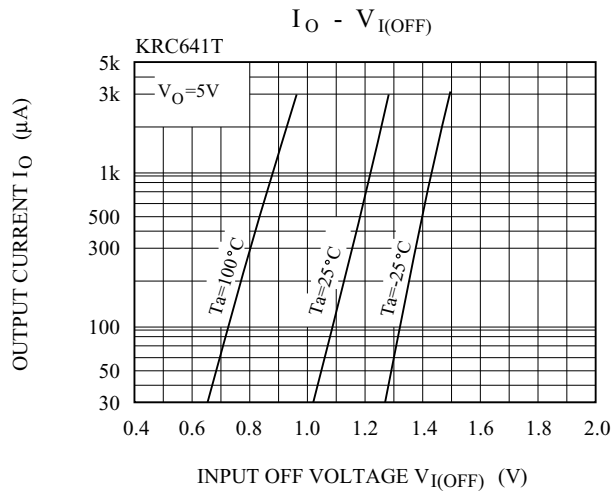
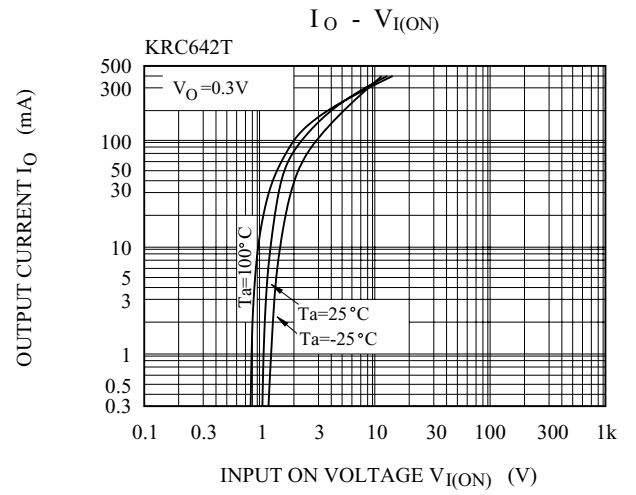
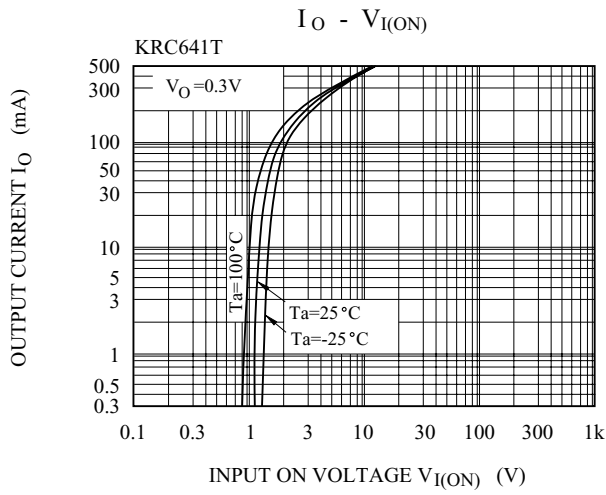
KRC641T~KRC646T

ELECTRICAL CHARACTERISTICS (Ta=25)

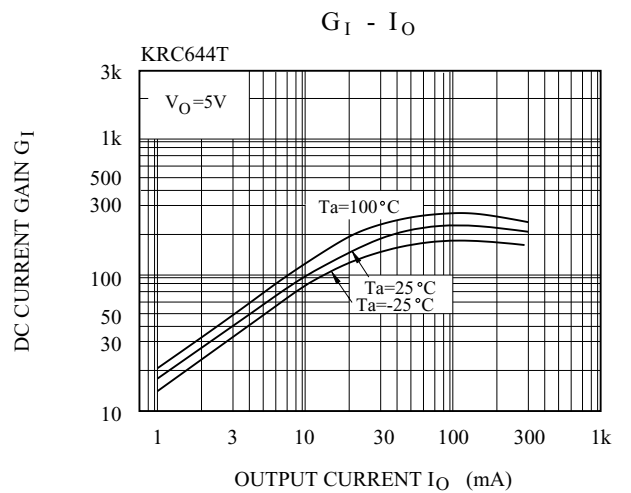
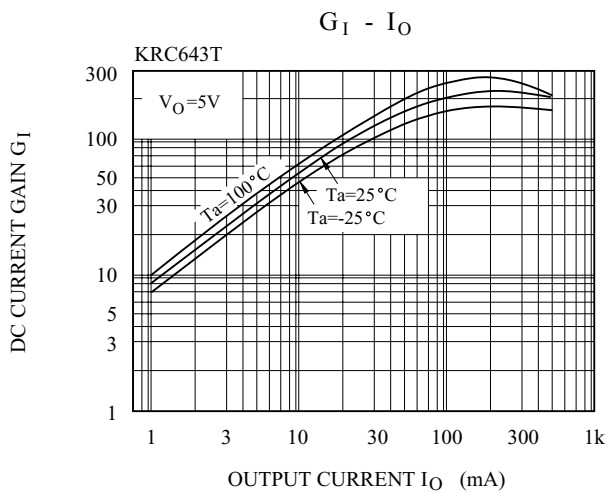
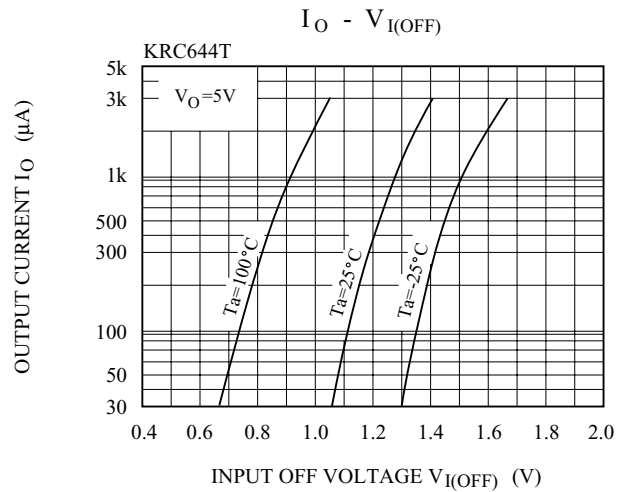
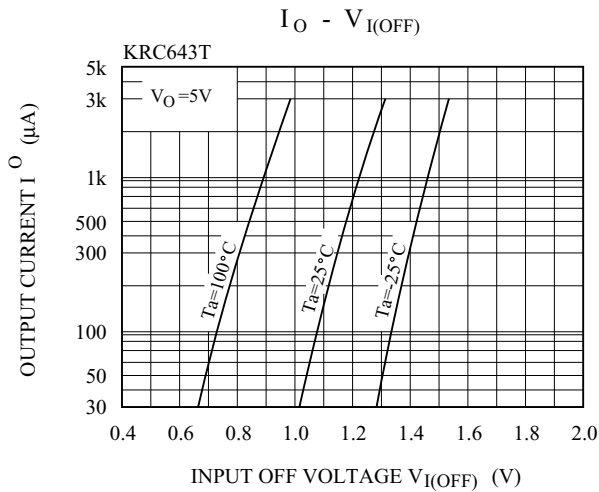
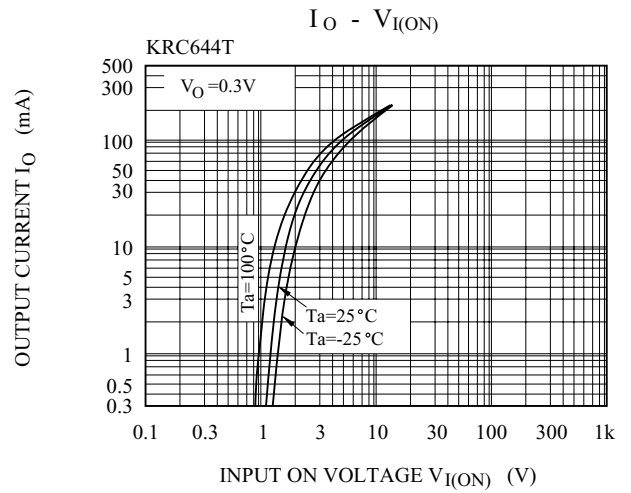
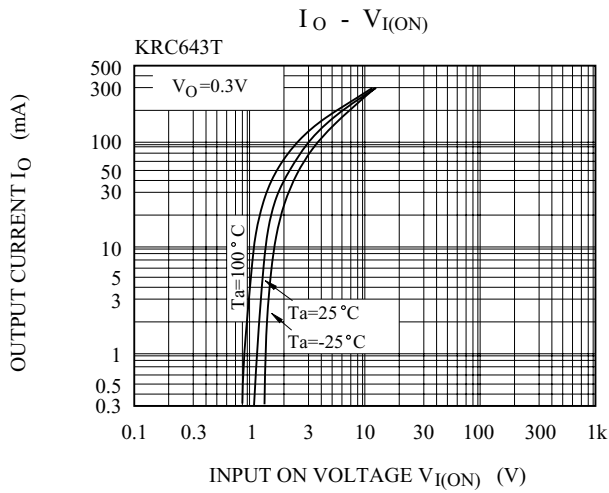
CHARACTERISTIC		SYMBOL	TEST CONDITION	MIN.	TYP.	MAX.	UNIT
Output Cut-off Current	KRC641T~646T	$I_{O(OFF)}$	$V_O=30V, V_I=0$	-	-	10	μA
DC Current Gain	KRC641T	G_I	$V_O=5V, I_O=50mA$	33	-	-	
	KRC642T			39	-	-	
	KRC643T			47	-	-	
	KRC644T			56	-	-	
	KRC645T			56	-	-	
	KRC646T			56	-	-	
Output Voltage	KRC641T~646T	$V_{O(ON)}$	$I_O=50mA, I_I=2.5mA$	-	0.1	0.3	V
Input Voltage (ON)	KRC641T	$V_{I(ON)}$	$V_O=0.3V, I_O=20mA$	-	-	3.0	V
	KRC642T			-	-	3.0	
	KRC643T			-	-	3.0	
	KRC644T			-	-	3.0	
	KRC645T			-	-	3.0	
	KRC646T			-	-	2.0	
Input Voltage (OFF)	KRC641T~644T	$V_{I(OFF)}$	$V_O=5V, I_O=0.1mA$	0.5	-	-	V
	KRC645T~646T			0.3	-	-	
Transition Frequency	KRC641T~646T	f_T^*	$V_O=10V, I_O=5mA, f=100MHz$	-	200	-	MHz
Input Current	KRC641T	I_I	$V_I=5V$	-	-	7.2	mA
	KRC642T			-	-	3.8	
	KRC643T			-	-	1.8	
	KRC644T			-	-	0.88	
	KRC645T			-	-	7.2	
	KRC646T			-	-	3.6	
Input Resistor	KRC641T	R1	-	0.7	1	1.3	k Ω
	KRC642T			1.54	2.2	2.86	
	KRC643T			3.29	4.7	6.11	
	KRC644T			7	10	13	
	KRC645T			0.7	1	1.3	
	KRC646T			1.54	2.2	2.86	
Resistor Ratio	KRC641T~644T	R2/R1	-	0.8	1	1.2	
	KRC645T			8	10	12	
	KRC646T			3.6	4.5	5.5	

Note : * Characteristic of Transistor Only.

KRC641T~KRC646T



KRC641T~KRC646T



KRC641T~KRC646T

