



## UG9K

## DUAL TRANSISTOR

### COMPOUND TRANSISTORS

### UG9K

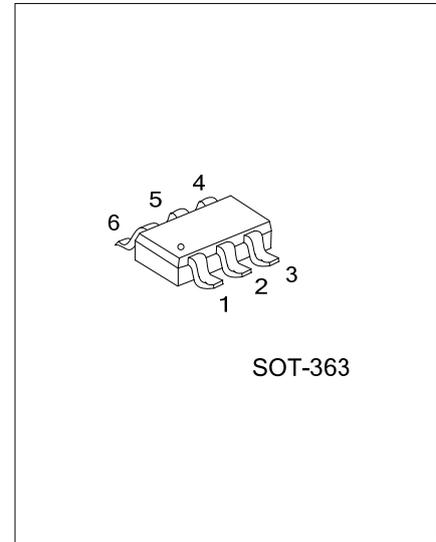
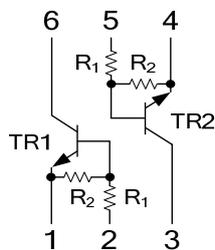
#### DESCRIPTION

As a compound transistor with resistor, the UTC **UG9K** is for switching application.

#### FEATURES

- \* Silicon epitaxial type
- \* The internal two transistor elements are independent.

#### SYMBOL



SOT-363

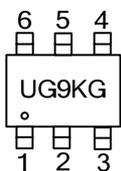
#### ORDERING INFORMATION

Ordering Number	Package	Pin Assignment						Packing
		1	2	3	4	5	6	
UG9KG-AL6-R	SOT-363	E1	B1	C2	E2	B2	C1	Tape Reel

Note: Pin Assignment: E: Emitter B: Base C: Collector

<p>UG9KG-AL6-R</p> <ul style="list-style-type: none"> <li>(1) Packing Type</li> <li>(2) Package Type</li> <li>(3) Green Package</li> </ul>	<ul style="list-style-type: none"> <li>(1) R: Tape Reel</li> <li>(2) AL6: SOT-363</li> <li>(3) G: Halogen Free and Lead Free</li> </ul>
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#### MARKING



■ ABSOLUTE MAXIMUM RATINGS ( $T_A=25^{\circ}\text{C}$ , unless otherwise specified)

PARAMETER	SYMBOL	RATINGS	UNIT
Collector-Base Voltage	$V_{CBO}$	50	V
Collector-Emitter Voltage	$V_{CEO}$	50	V
Emitter-Base Voltage	$V_{EBO}$	10	V
Collector Current	$I_C$	100	mA
Collector Power Dissipation	$P_C$	150	mW
Junction Temperature	$T_J$	+150	$^{\circ}\text{C}$
Storage Temperature	$T_{STG}$	-55 ~ +150	$^{\circ}\text{C}$

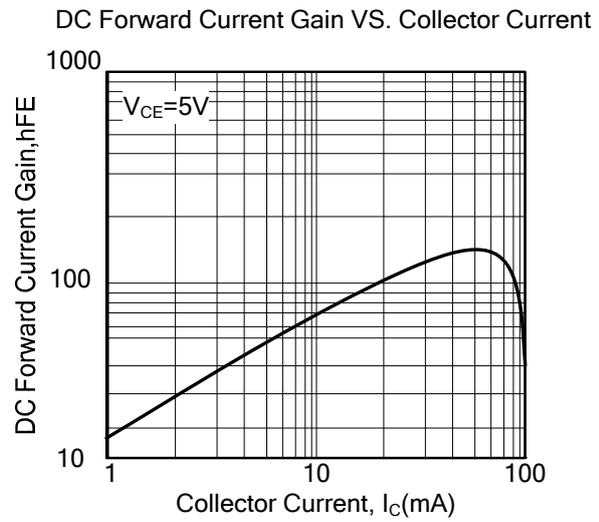
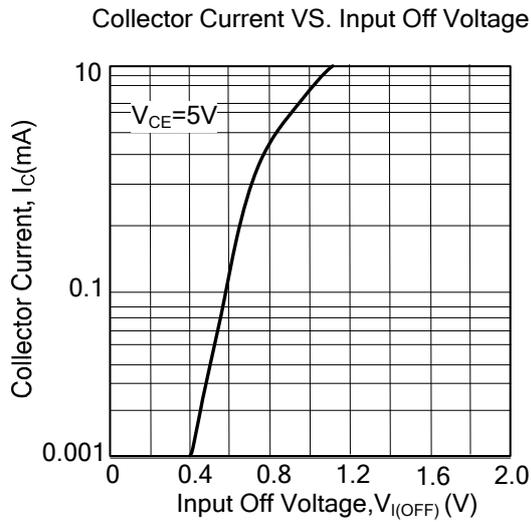
Note: Absolute maximum ratings are those values beyond which the device could be permanently damaged.

Absolute maximum ratings are stress ratings only and functional device operation is not implied.

■ ELECTRICAL CHARACTERISTICS ( $T_A=25^{\circ}\text{C}$ , unless otherwise specified)

PARAMETER	SYMBOL	TEST CONDITIONS	MIN	TYP	MAX	UNIT
Collector-Base Breakdown Voltage	$BV_{CBO}$	$I_C=100\mu\text{A}$	50			V
Input Voltage	$V_{IN(ON)}$	$V_{CE}=0.3\text{V}, I_C=10\text{mA}$	3			V
	$V_{IN(OFF)}$	$V_{CE}=5\text{V}, I_C=100\mu\text{A}$			0.5	
Collector-Emitter Saturation Voltage	$V_{CE(SAT)}$	$I_C/I_B=10\text{mA}/0.5\text{mA}$		0.1	0.3	V
Collector Cutoff Current	$I_{CBO}$	$V_{CB}=50\text{V}$			0.1	$\mu\text{A}$
DC Current Transfer Ratio	$h_{FE}$	$V_{CE}=5\text{V}, I_C=5\text{mA}$	30			
Transition Frequency	$f_T$	$V_{CE}=10\text{V}, I_E=-5\text{mA}$		250		MHz
Input Resistance	$R_1$		7	10	13	k $\Omega$
Resistor Ratio	$R_2/R_1$		0.8	1	1.2	

## ■ TYPICAL CHARACTERISTICS



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