



## UH11K

Preliminary

**NPN EPITAXIAL SILICON TRANSISTOR**

### DUAL BIAS RESISTOR TRANSISTORS

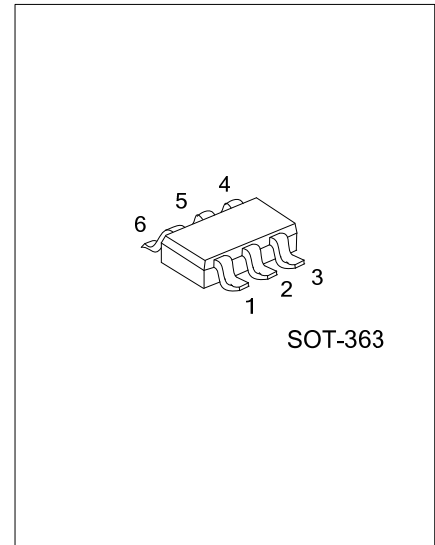
#### DESCRIPTION

The UTC **UH11K** is a dual bias resistor transistors, it uses UTC's advanced technology to provide customers with saving board space, reducing component count, etc.

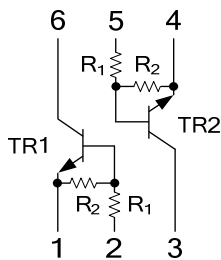
The UTC **UH11K** is suitable for low power surface mount applications, etc.

#### FEATURES

- \* Reducing component count
- \* Saving board space



#### EQUIVALENT CIRCUIT



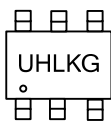
#### ORDERING INFORMATION

Ordering Number	Package	Pin Assignment						Packing
		1	2	3	4	5	6	
UH11KG-AL6-R	SOT-363	E1	B1	C2	E2	B2	C1	Tape Reel

Note: Pin Assignment: G: Gate D: Drain S: Source

UH11KG-AL6-R	(1)Packing Type	(1) R: Tape Reel
	(2)Package Type	(2) AL6: SOT-363
	(3)Green Package	(3) G: Halogen Free and Lead Free

#### 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
Collector Current	$I_C$	100	mA
Power Dissipation	$P_D$	150	mW
Junction Temperature	$T_J$	-55~+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.

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
<b>OFF CHARACTERISTICS</b>						
Collector-Base Breakdown Voltage	$BV_{CBO}$	$I_C=10\mu\text{A}$ , $I_E=0$	50			V
Collector-Emitter Breakdown Voltage (Note 1)	$BV_{CEO}$	$I_C=2.0\text{mA}$ , $I_B=0$	50			V
Collector-Base Cutoff Current	$I_{CBO}$	$V_{CB}=50\text{V}$ , $I_E=0$			100	nA
Collector-Emitter Cutoff Current	$I_{CEO}$	$V_{CE}=50\text{V}$ , $I_B=0$			500	nA
Emitter-Base Cutoff Current	$I_{EBO}$	$V_{EB}=6.0\text{V}$ , $I_C=0$			0.5	mA
<b>ON CHARACTERISTICS (Note 2)</b>						
DC Current Gain	$h_{FE}$	$V_{CE}=10\text{V}$ , $I_C=5.0\text{mA}$	35	60		
Output Voltage (on)	$V_{OL}$	$V_{CC}=5.0\text{V}$ , $V_B=2.5\text{V}$ , $R_L=1.0\text{ k}\Omega$			0.2	V
<b>ON CHARACTERISTICS (Note 2)</b>						
Input Resistor	$R_1$		7.0	10	13	k $\Omega$
Resistor Ratio	$R_1/R_2$		0.8	1.0	1.2	k $\Omega$

Notes: 1. Pulse Test: Pulse Width<300 $\mu\text{s}$ , Duty Cycle<2.0%

2. Pulse Test: Pulse Width<300ms, Duty Cycle<2.0%

UTC assumes no responsibility for equipment failures that result from using products at values that exceed, even momentarily, rated values (such as maximum ratings, operating condition ranges, or other parameters) listed in products specifications of any and all UTC products described or contained herein. UTC products are not designed for use in life support appliances, devices or systems where malfunction of these products can be reasonably expected to result in personal injury. Reproduction in whole or in part is prohibited without the prior written consent of the copyright owner. The information presented in this document does not form part of any quotation or contract, is believed to be accurate and reliable and may be changed without notice.