



## UH11K

Preliminary

**NPN EPITAXIAL SILICON TRANSISTOR**

### DUAL BIAS RESISTOR TRANSISTORS

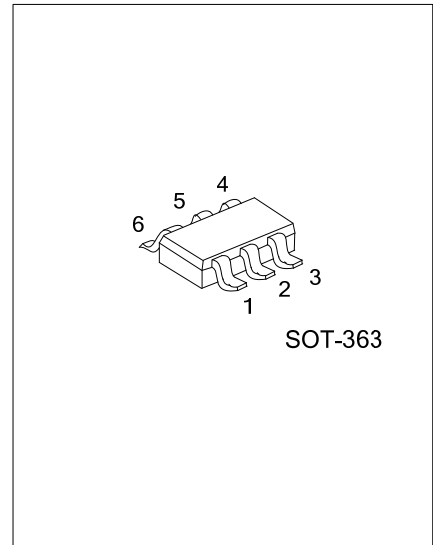
#### DESCRIPTION

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.

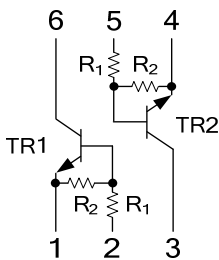
The UTC **UH11K** is suitable for low power surface mount applications, etc.

#### FEATURES

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



#### EQUIVALENT CIRCUIT



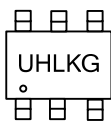
#### ORDERING INFORMATION

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.

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■ 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%

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