

# UTC2SC1384 NPN EPITAXIAL PLANAR TRANSISTOR

## NPN EPITAXIAL PLANAR TRANSISTOR

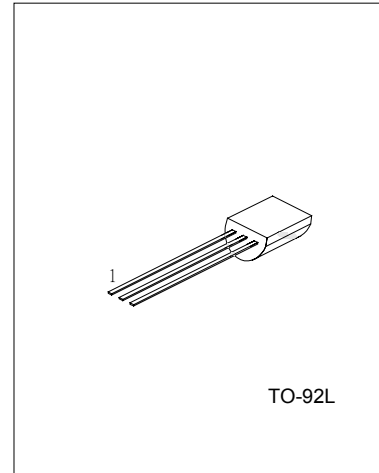
### DESCRIPTION

The UTC 2SC1384 is power amplifier and driver.

### FEATURES

\*Low  $V_{CE(sat)}$

\*2~3W output in complementary pair with 2SA684



1:EMITTER 2:COLLECTOR 3:BASE

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

PARAMETER	SYMBOL	VALUE	UNIT
Collector-Base Voltage	$V_{CB0}$	60	V
Collector-Emitter Voltage	$V_{CE0}$	50	V
Emitter-Base Voltage	$V_{EB0}$	5	V
Peak Collector Current	$I_{cp}$	1.5	A
Collector Current(DC)	$I_c$	1	A
Collector Dissipation( $T_a=25^{\circ}\text{C}$ )	$P_c$	1	W
Junction Temperature	$T_j$	150	$^{\circ}\text{C}$
Storage Temperature	$T_{STG}$	-55 ~ +150	$^{\circ}\text{C}$

Remark: Pating type: $P_j=750\text{mW}$

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

PARAMETER	SYMBOL	TEST CONDITIONS	MIN	TYP	MAX	UNIT
Collector Cut-Off Current	$I_{CBO}$	$V_{CB}=20\text{V}, I_E=0$			0.1	$\mu\text{A}$
Collector-Base Voltage	$V_{CB0}$	$I_c=10\mu\text{A}, I_E=0$	60			V
Collector-Emitter Voltage	$V_{CE0}$	$I_c=2\text{mA}, I_B=0$	50			V
Emitter-Base Voltage	$V_{EB0}$	$I_E=10\mu\text{A}, I_c=0$	5			V
DC Current Gain	$h_{FE1}$ $h_{FE2}$	$V_{CE}=10\text{V}, I_c=500\text{mA}$ $V_{CE}=5\text{V}, I_B=1\text{A}$	85 50	160 100	340	
Collector-Emitter Saturation Voltage	$V_{CE(sat)}$	$I_c=0.5\text{A}, I_B=50\text{mA}$		0.2	0.4	V
Base-Emitter Saturation Voltage	$V_{BE(sat)}$	$I_c=0.5\text{A}, I_B=50\text{mA}$		0.85	1.2	V
Current Gain Bandwidth Product	$f_T$	$V_{CE}=10\text{V}, I_B=50\text{mA}$		200		MHz
Output Capacitance	$C_{ob}$	$V_{CB}=10\text{V}, I_E=0, f=1\text{MHz}$		11	20	pF

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## CLASSIFICATION OF hFE

RANK	Q	R	S
RANGE	85-170	120-240	170-340

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