



## 2SD1071

Preliminary

**NPN EPITAXIAL SILICON TRANSISTOR**

### HIGH VOLTAGE POWER AMPLIFIER

#### DESCRIPTION

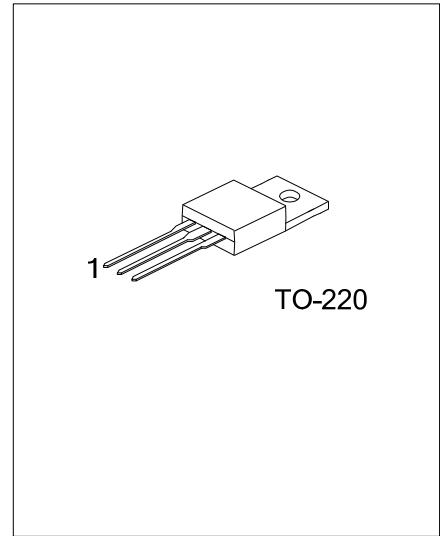
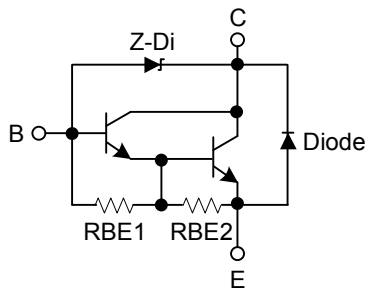
The UTC **2SD1071** is a high voltage power amplifier, it uses UTC advanced technology to provide the customers high DC current gain and low saturation voltage, etc.

The UTC **2SD1071** is suitable for general purpose power amplifier and Motor controls, etc.

#### FEATURES

- \* Low saturation voltage
- \* High DC current gain

#### EQUIVALENT CIRCUIT



#### ORDERING INFORMATION

Ordering Number		Package	Packing
Lead Free	Halogen Free		
2SD1071L-TA3-T	2SD1071G-TA3-T	TO-220	Tube

<p>2SD1071L-TA3-T</p> <ul style="list-style-type: none"> <li>(1) Packing Type</li> <li>(2) Package Type</li> <li>(3) Halogen Free</li> </ul>	<ul style="list-style-type: none"> <li>(1) T: Tube</li> <li>(2) TA3: TO-220</li> <li>(3) Halogen Free, L: Lead Free</li> </ul>
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■ ABSOLUTE MAXIMUM RATINGS ( $T_C=25^\circ\text{C}$ )

PARAMETER	SYMBOL	RATINGS	UNIT
Collector to Base Voltage	$V_{CBO}$	300	V
Collector to Emitter Voltage	$V_{CEO}$	300	V
Emitter to Base Voltage	$V_{EBO}$	6	V
Collector Current	$I_C$	6	A
Base Current	$I_B$	2.5	A
Collector Dissipation	$P_C$	40	W
Junction Temperature	$T_J$	+150	$^\circ\text{C}$
Storage Temperature	$T_{STG}$	-40~+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.

■ THERMAL DATA

PARAMETER	SYMBOL	RATINGS	UNIT
Junction to Case	$\theta_{JC}$	3	$^\circ\text{C/W}$

■ ELECTRICAL CHARACTERISTICS ( $T_C=25^\circ\text{C}$ )

PARAMETER	SYMBOL	TEST CONDITIONS	MIN	TYP	MAX	UNIT
Collector to Base Voltage	$V_{CBO}$	$I_{CBO}=1\text{mA}$	300			V
Collector to Emitter Voltage	$V_{CEO}$	$I_{CEO}=1\text{mA}$	300			V
Emitter to Base Voltage	$V_{EBO}$	$I_{EBO}=150\text{mA}$	6			V
Collector Cut-Off Current	$I_{CBO}$	$V_{CBO}=250\text{V}$			0.1	mA
Emitter Cut-Off Current	$I_{EBO}$	$V_{EBO}=6\text{V}$			150	mA
DC Current Gain	$h_{FE}$	$V_{CE}=2\text{V}, I_C=4\text{A}$	500			
Collector-Emitter Saturation Voltage	$V_{CE(SAT)}$	$I_C=4\text{A}, I_B=15\text{mA}$			1.5	V
Base-Emitter Saturation Voltage	$V_{BE(SAT)}$				2.0	V

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.