



2SD1071

Preliminary

NPN EPITAXIAL SILICON TRANSISTOR

HIGH VOLTAGE POWER AMPLIFIER

DESCRIPTION

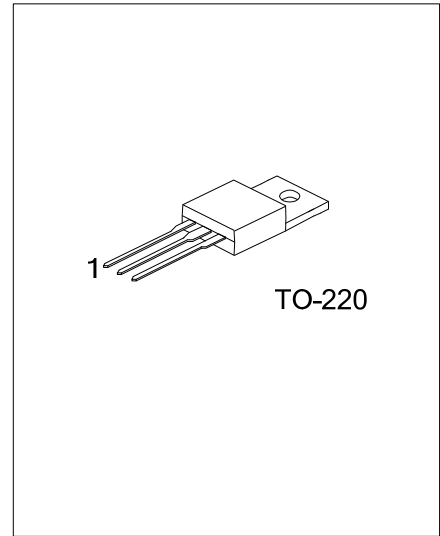
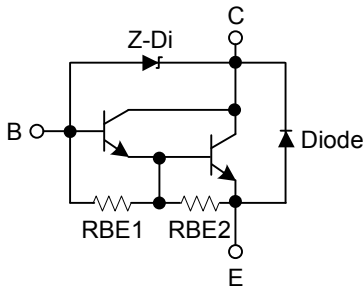
The UTC **2SD1071** is a high voltage power amplifier, it uses UTC advanced technology to provide the customers high DC current gain and low saturation voltage, etc.

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

PARAMETER	SYMBOL	RATINGS	UNIT
Collector to Base Voltage	V_{CB0}	300	V
Collector to Emitter Voltage	V_{CE0}	300	V
Emitter to Base Voltage	V_{EB0}	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	θ_{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_{CB0}	$I_{CB0}=1\text{mA}$	300			V
Collector to Emitter Voltage	V_{CE0}	$I_{CE0}=1\text{mA}$	300			V
Emitter to Base Voltage	V_{EB0}	$I_{EB0}=150\text{mA}$	6			V
Collector Cut-Off Current	I_{CB0}	$V_{CB0}=250\text{V}$			0.1	mA
Emitter Cut-Off Current	I_{EB0}	$V_{EB0}=6\text{V}$			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

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