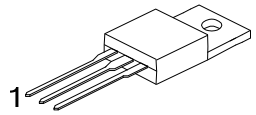
2SD1071

Preliminary ***NPN EPITAXIAL SILICON TRANSISTOR***

HIGH VOLTAGE POWER AMPLIFIER



TO-220

■ DESCRIPTION

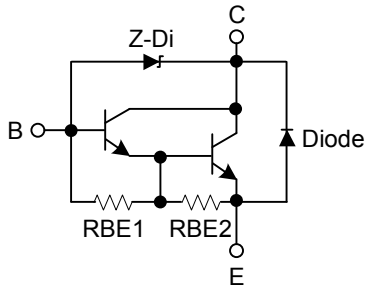
The UTC **2SD1071** is a high voltage power amplifier, it uses UTC advanced technology to provide the customers high DC current gain and low saturation voltage, etc.

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

■ FEATURES

* Low saturation voltage
* High DC current gain

■ EQUIVALENT CIRCUIT



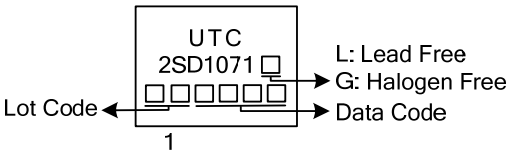
■ ORDERING INFORMATION

Ordering Number		Package	Pin Assignment			Packing
Lead Free	Halogen Free		1	2	3	
2SD1071L-TA3-T	2SD1071G-TA3-T	TO-220	B	C	E	Tube

Note: Pin Assignment: E: Emitter C: Collector B: Base

2SD1071L-TA3-T (1)Packing Type (2)Package Type (3)Green Package	(1) T: Tube (2) TA3: TO-220 (3) L: Lead Free, G: Halogen Free and Lead Free

■ MARKING



■ ABSOLUTE MAXIMUM RATINGS (T_C=25°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	°C
Storage Temperature	T_{STG}	-40~+150	°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	°C/W

■ ELECTRICAL CHARACTERISTICS (T_C=25°C)

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