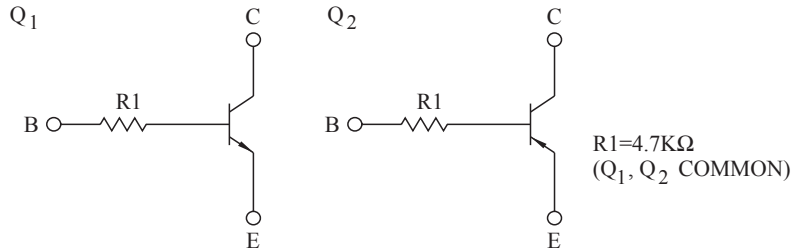


SWITCHING APPLICATION.  
INTERFACE CIRCUIT AND DRIVER CIRCUIT APPLICATION.

#### FEATURES

- Including two devices in USV.  
(Ultra Super mini type with 5 leads.)
- With Built-in bias resistors.
- Simplify circuit design.
- Reduce a quantity of parts and manufacturing process.

#### EQUIVALENT CIRCUIT

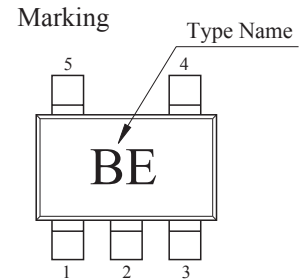
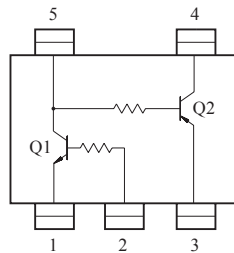


DIM	MILLIMETERS
A	2.00±0.20
A1	1.3±0.1
B	2.1±0.1
B1	1.25±0.1
C	0.65
D	0.2+0.10/-0.05
G	0-0.1
H	0.9±0.1
T	0.15+0.1/-0.05

1. Q<sub>1</sub> COMMON (EMITTER)  
2. Q<sub>1</sub> IN (BASE)  
3. Q<sub>2</sub> COMMON (EMITTER)  
4. Q<sub>2</sub> OUT (COLLECTOR)  
5. Q<sub>1</sub> OUT (COLLECTOR)  
Q<sub>2</sub> IN (BASE)

USV

#### EQUIVALENT CIRCUIT (TOP VIEW)



#### Q<sub>1</sub> MAXIMUM RATING (Ta=25 °C)

CHARACTERISTIC	SYMBOL	RATING	UNIT
Collector-Base Voltage	V <sub>CBO</sub>	50	V
Collector-Emitter Voltage	V <sub>CEO</sub>	50	V
Emitter-Base Voltage	V <sub>EBO</sub>	5	V
Collector Current	I <sub>C</sub>	100	mA

#### Q<sub>2</sub> MAXIMUM RATING (Ta=25 °C)

CHARACTERISTIC	SYMBOL	RATING	UNIT
Collector-Base Voltage	V <sub>CBO</sub>	-50	V
Collector-Emitter Voltage	V <sub>CEO</sub>	-50	V
Emitter-Base Voltage	V <sub>EBO</sub>	-5	V
Collector Current	I <sub>C</sub>	-100	mA

#### Q<sub>1</sub>, Q<sub>2</sub> MAXIMUM RATING (Ta=25 °C)

CHARACTERISTIC	SYMBOL	RATING	UNIT
Power Dissipation	P <sub>C</sub> *	200	mW
Junction Temperature	T <sub>j</sub>	150	°C
Storage Temperature Range	T <sub>stg</sub>	-55 ~ 150	°C

\* Total Raing.

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## Q<sub>1</sub> ELECTRICAL CHARACTERISTICS (Ta=25°C)

CHARACTERISTIC	SYMBOL	TEST CONDITION	MIN.	TYP.	MAX.	UNIT.
Collector Cut-off Current	$I_{CBO}$	$V_{CB}=50V, I_E=0$	-	-	100	nA
Emitter Cut-off Current	$I_{EBO}$	$V_{EB}=5V, I_C=0$	-	-	100	nA
DC Current Gain	$h_{FE}$	$V_{CE}=5V, I_C=1mA$	120	-	-	
Collector-Emitter Saturation Voltage	$V_{CE(sat)}$	$I_C=10mA, I_B=0.5mA$	-	0.1	0.3	V
Transition Frequency	$f_T^*$	$V_{CE}=10V, I_C=5mA$	-	250	-	MHz
Input Resistor	$R_I$		-	4.7	-	k $\Omega$

Note : \* Characteristic of Transistor Only.

## Q<sub>2</sub> ELECTRICAL CHARACTERISTICS (Ta=25°C)

CHARACTERISTIC	SYMBOL	TEST CONDITION	MIN.	TYP.	MAX.	UNIT.
Collector Cut-off Current	$I_{CBO}$	$V_{CB}=-50V, I_E=0$	-	-	-100	nA
Emitter Cut-off Current	$I_{EBO}$	$V_{EB}=-5V, I_C=0$	-	-	-100	nA
DC Current Gain	$h_{FE}$	$V_{CE}=-5V, I_C=-1mA$	120	-	-	
Collector-Emitter Saturation Voltage	$V_{CE(sat)}$	$I_C=-10mA, I_B=-0.5mA$	-	-0.1	-0.3	V
Transition Frequency	$f_T^*$	$V_{CE}=-10V, I_C=-5mA$	-	250	-	MHz
Input Resistor	$R_I$		-	4.7	-	k $\Omega$

Note : \* Characteristic of Transistor Only.

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