

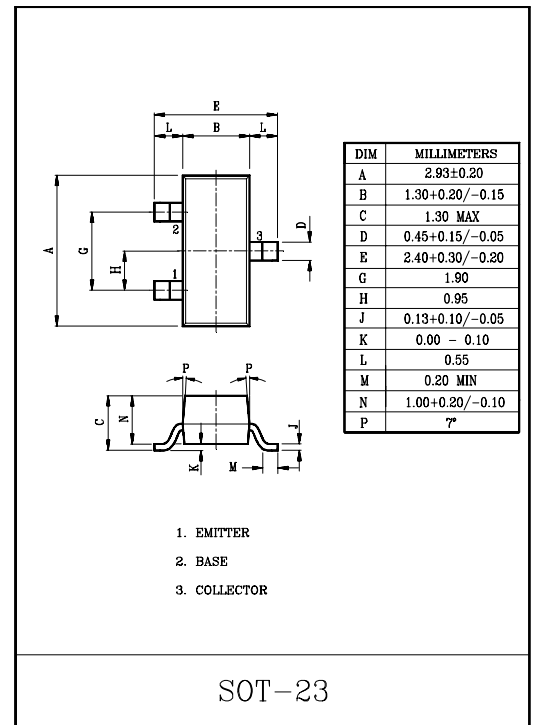
GENERAL PURPOSE APPLICATION.  
SWITCHING APPLICATION.

• For Complementary with NPN Type BC849/850

MAXIMUM RATINGS (Ta=25°C)

| CHARACTERISTIC              | SYMBOL           | RATING  | UNIT |
|-----------------------------|------------------|---------|------|
| Collector-Base Voltage      | BC859            | -30     | V    |
|                             | BC860            | -50     |      |
| Collector-Emitter Voltage   | BC859            | -30     | V    |
|                             | BC860            | -45     |      |
| Emitter-Base Voltage        | V <sub>EBO</sub> | -5      | V    |
| Collector Current           | I <sub>C</sub>   | -100    | mA   |
| Collector Power Dissipation | P <sub>C</sub> * | 350     | mW   |
| Junction Temperature        | T <sub>j</sub>   | 150     | °C   |
| Storage Temperature Range   | T <sub>stg</sub> | -55~150 | °C   |

P<sub>C</sub>\* : Package Mounted On 99.5% Alumina 10×8×0.6mm.



ELECTRICAL CHARACTERISTICS (Ta=25°C)

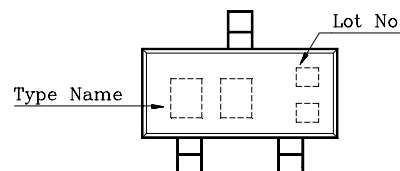
| CHARACTERISTIC                       | SYMBOL                 | TEST CONDITION  | MIN. | TYP.   | MAX.  | UNIT |
|--------------------------------------|------------------------|---|------|--------|-------|------|
| Collector-Emitter Breakdown Voltage  | BC859                  | I <sub>C</sub> = -10mA, I <sub>B</sub> = 0  | -30  | -      | -     | V    |
|                                      | BC860                  |   | -45  | -      | -     |      |
| Collector-Base Breakdown Voltage     | BC859                  | I <sub>C</sub> = -10μA, I <sub>E</sub> = 0  | -30  | -      | -     | V    |
|                                      | BC860                  |   | -50  | -      | -     |      |
| Emitter-Base Breakdown Voltage       | V <sub>(BR)EBO</sub>   | I <sub>E</sub> = -10μA, I <sub>C</sub> = 0  | -5   | -      | -     | V    |
| Collector Cut-off Current            | I <sub>CBO</sub>       | V <sub>CB</sub> = -30V, I <sub>E</sub> = 0  | -    | -      | -15   | nA   |
| DC Current Gain                      | h <sub>FE</sub>        | I <sub>C</sub> = -2mA, V <sub>CE</sub> = -5V                                      | 125  | -      | 475   |      |
| Base-Emitter Voltage                 | V <sub>BE(ON) 1</sub>  | I <sub>C</sub> = -2mA, V <sub>CE</sub> = -5V                                      | -0.6 | -0.65  | -0.75 | V    |
|                                      | V <sub>BE(ON) 2</sub>  | I <sub>C</sub> = -10mA, V <sub>CE</sub> = -5V                                     | -    | -      | -0.82 |      |
| Collector-Emitter Saturation Voltage | V <sub>CE(sat) 1</sub> | I <sub>C</sub> = -10mA, I <sub>B</sub> = -0.5mA                                   | -    | -0.075 | -0.3  | V    |
|                                      | V <sub>CE(sat) 2</sub> | I <sub>C</sub> = -100mA, I <sub>B</sub> = -5mA                                    | -    | -0.25  | -0.65 |      |
| Base-Emitter Saturation Voltage      | V <sub>BE(sat) 1</sub> | I <sub>C</sub> = -10mA, I <sub>B</sub> = -0.5mA                                   | -    | -0.7   | -     | V    |
|                                      | V <sub>BE(sat) 2</sub> | I <sub>C</sub> = -100mA, I <sub>B</sub> = -5mA                                    | -    | -0.85  | -     |      |
| Transition Frequency                 | f <sub>T</sub>         | I <sub>C</sub> = -10mA, V <sub>CE</sub> = -5V, f = 100MHz                         | -    | 150    | -     | MHz  |
| Collector Output Capacitance         | C <sub>ob</sub>        | V <sub>CB</sub> = -10V, I <sub>E</sub> = 0, f = 1MHz                              | -    | 4.5    | -     | pF   |
| Noise Figure                         | NF                     | I <sub>C</sub> = -200μA, V <sub>CE</sub> = -5V<br>R <sub>g</sub> = 10kΩ, f = 1kHz | -    | -      | 4.0   | dB   |

Note : h<sub>FE</sub> Classification A:125~250, B:220~475

MARK SPEC

| TYPE | BC859A | BC859B | BC860A | BC860B |
|------|--------|--------|--------|--------|
| MARK | 4A     | 4B     | 4E     | 4G     |

Marking



# BC859/860

