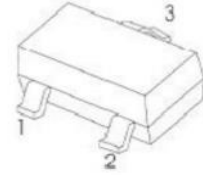




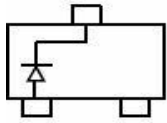
BAT854W/AW/CW/SW

■ Features

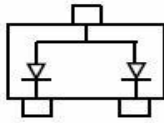
- Very low forward voltage
- Very low reverse current
- Guard ring protected
- Very small SMD package.



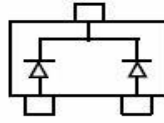
SOT323



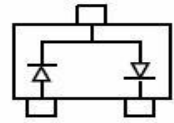
BAT854W



BAT854AW



BAT854CW



BAT854SW

■ Absolute Maximum Ratings Ta = 25 °C

| Parameter | Symbol | Conditions | Min | Max | Unit |
|---|---------------------|--|-----|------|------|
| Continuous reverse voltage | V _R | | | 40 | V |
| Continuous forward current | I _F | | | 200 | mA |
| Repetitive peak forward current | I _{FRM} | t _p ≤ 1 s; d ≤ 0.5 | | 300 | mA |
| Non-repetitive peak forward current | I _{FSM} | t = 8.3 ms half sinewave; JEDEC method | | 1 | A |
| Storage temperature | T _{stg} | | -65 | +150 | °C |
| Junction temperature | T _j | | | 150 | °C |
| Operating ambient temperature | T _{amb} | | -65 | +150 | °C |
| Thermal resistance from junction to ambient | R _{th j-a} | | | 625 | K/W |

■ Electrical Characteristics Ta = 25 °C

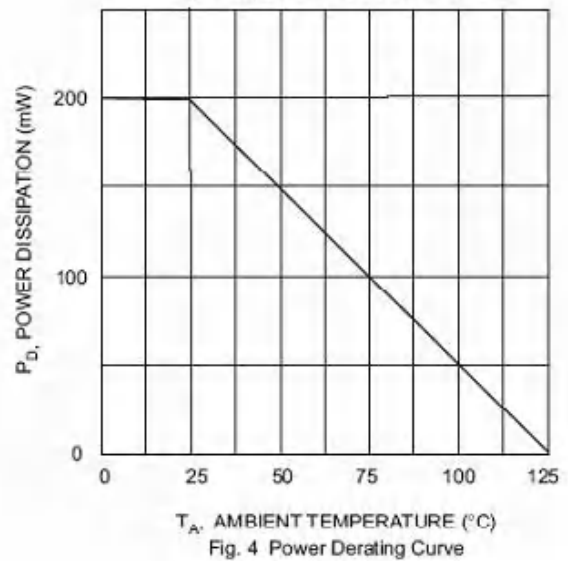
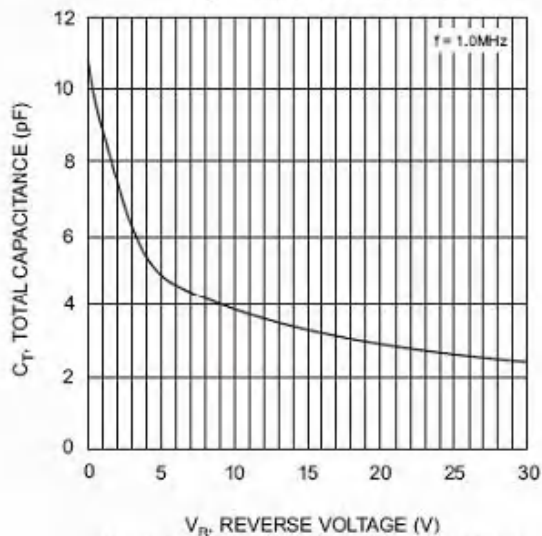
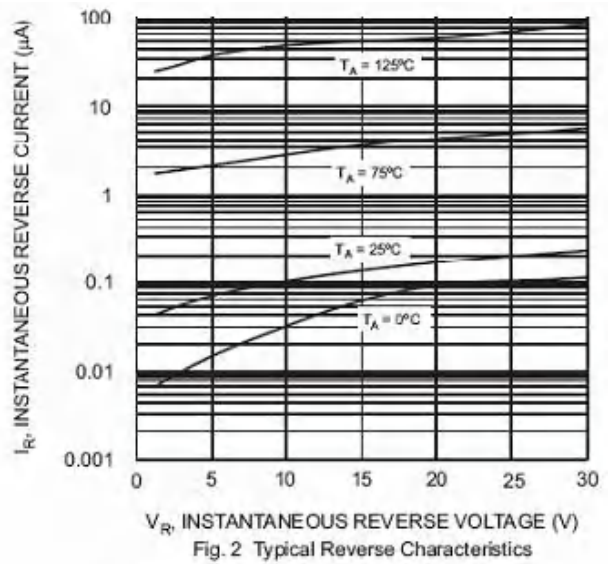
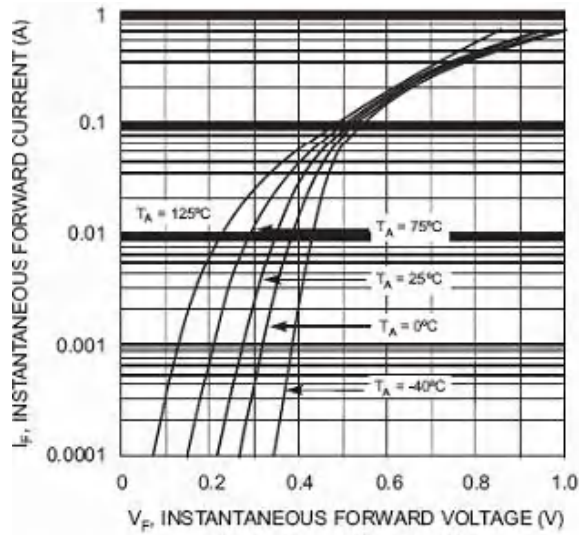
| Parameter | Symbol | Conditions | Typ | Max | Unit |
|----------------------------|----------------|---------------------------------|-----|-----|------|
| Forward voltage | V _F | I _F = 0.1 mA | 200 | | mV |
| | | I _F = 1 mA | 260 | | |
| | | I _F = 10 mA | 340 | | |
| | | I _F = 30 mA | | 420 | |
| | | I _F = 100 mA | | 550 | |
| Continuous reverse current | I _R | V _R = 25 V; Note 1 | | 0.5 | μ A |
| Diode capacitance | C _d | f = 1 MHz; V _R = 1 V | | 20 | pF |

Note

1. Pulse test: t_p < 300 μ s; ä ≤ 0.02.

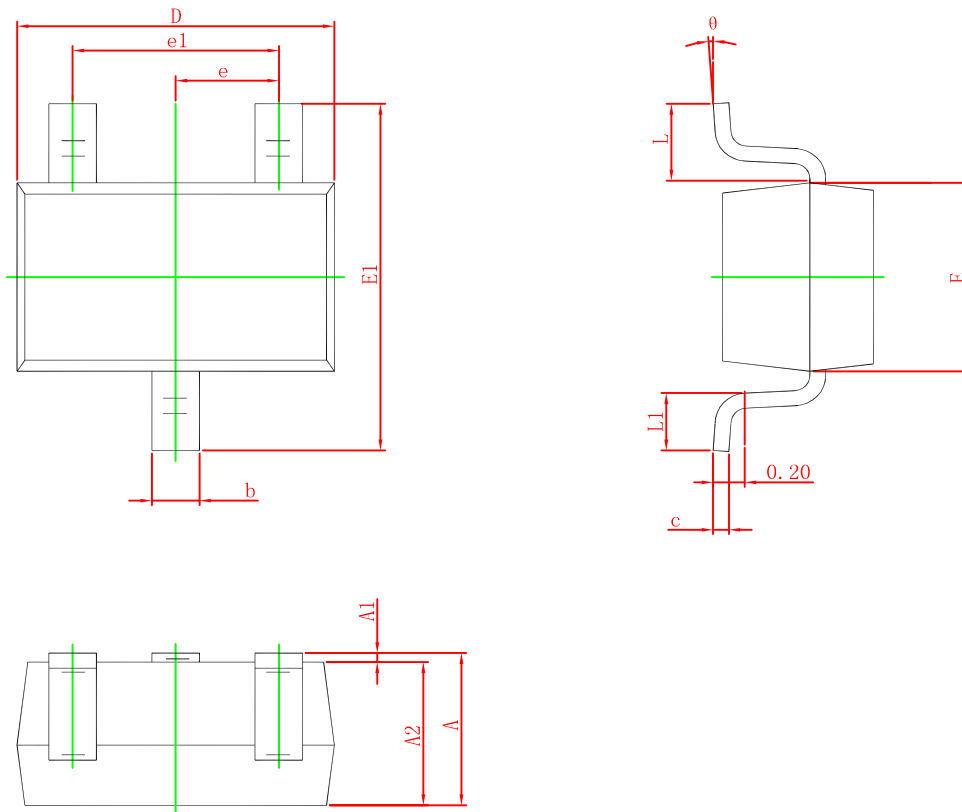
■ Marking

| Type | BTA854W | BAT854AW | BAT854CW | BAT854SW |
|---------|---------|----------|----------|----------|
| Marking | 81 | 82 | 83 | 84 |





SOT323 PACKAGE OUTLINE DIMENSIONS



| Symbol | Dimensions In Millimeters | | Dimensions In Inches | |
|--------|---------------------------|-------|----------------------|-------|
| | Min. | Max. | Min. | Max. |
| A | 0.900 | 1.100 | 0.035 | 0.043 |
| A1 | 0.000 | 0.100 | 0.000 | 0.004 |
| A2 | 0.900 | 1.000 | 0.035 | 0.039 |
| b | 0.200 | 0.400 | 0.008 | 0.016 |
| c | 0.080 | 0.150 | 0.003 | 0.006 |
| D | 2.000 | 2.200 | 0.079 | 0.087 |
| E | 1.150 | 1.350 | 0.045 | 0.053 |
| E1 | 2.150 | 2.450 | 0.085 | 0.096 |
| e | 0.650 TYP. | | 0.026 TYP. | |
| e1 | 1.200 | 1.400 | 0.047 | 0.055 |
| L | 0.525 REF. | | 0.021 REF. | |
| L1 | 0.260 | 0.460 | 0.010 | 0.018 |
| θ | 0° | 8° | 0° | 8° |