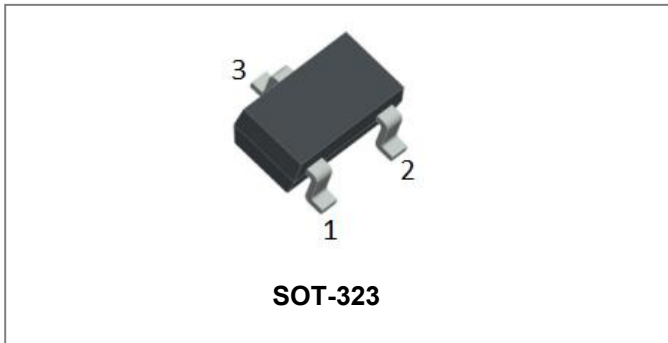
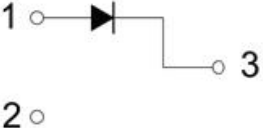
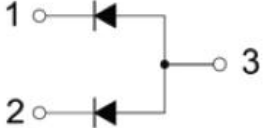
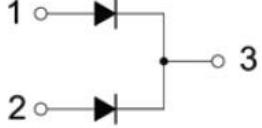
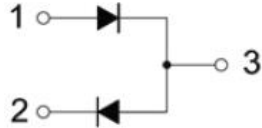
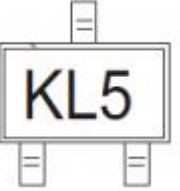


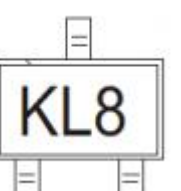


BAT54W/AW/CW/SW SCHOTTKY BARRIER DIODE



Features

- Extremely Fast Switching Speed
- Low forward voltage
- This is a Pb – Free Device
- All SMC parts are traceable to the wafer lot
- Additional testing can be offered upon request

| BAT54W | BAT54AW | BAT54CW | BAT54SW |
|---|---|--|---|
|  |  |  |  |
| MARKING:KL5 | MARKING:KL6 | MARKING:KL7 | MARKING:KL8 |
|  |  |  |  |

Maximum Ratings@T_A=25°C unless otherwise specified

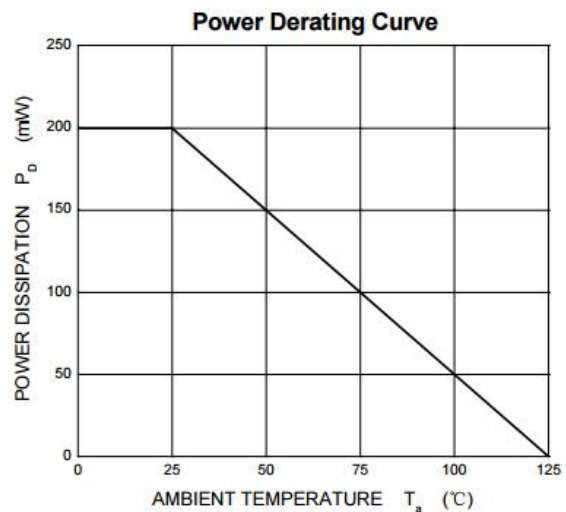
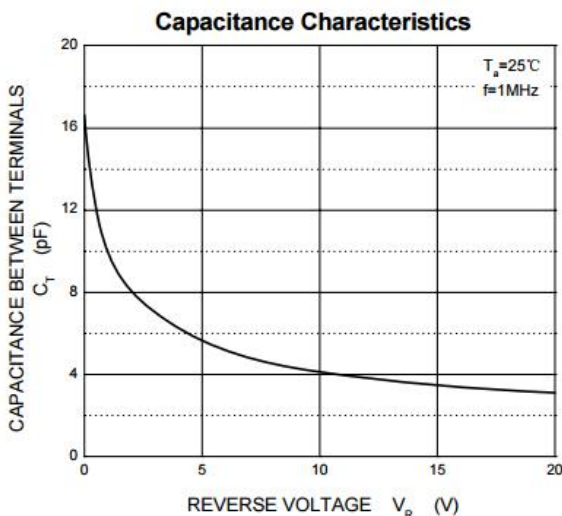
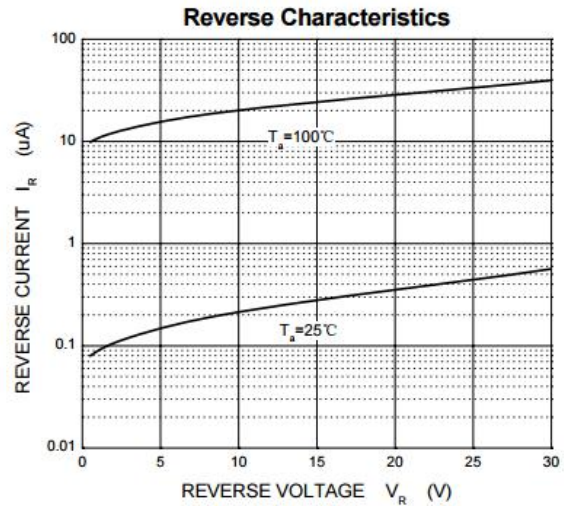
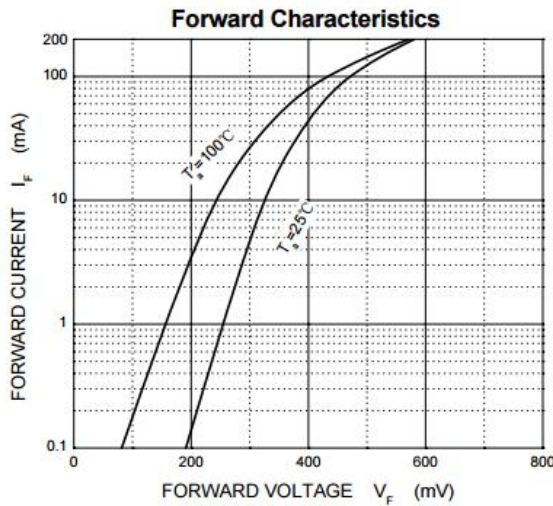
Single Phase, half wave, 60Hz, resistive or inductive load. For capacitive load, derate current by 20%.

| Characteristic | Symbol | Limit | Units |
|--|------------------|-------------|-------|
| Peak Repetitive Reverse Voltage | V _{RRM} | 30 | V |
| Working Peak Reverse Voltage | V _{RWM} | | |
| DC Blocking Voltage | V _R | | |
| Forward Continuous Current | I _{FM} | 200 | mA |
| Repetitive Peak Forward Current @ t ≤ 1s, δ ≤ 0.5 | I _{FRM} | 300 | mA |
| Non-Repetitive Peak Forward Surge Current 8.3ms Single half sine-wave superimposed on rated load (JEDEC Method) | I _{FSM} | 600 | mA |
| Power Dissipation | P _d | 200 | mW |
| Typical Thermal Resistance Junction to Ambient | R _{θJA} | 500 | °C/W |
| Junction Temperature Range | T _J | 125 | °C |
| Storage Temperature Range | T _{STG} | -55 to +150 | °C |

Electrical Characteristics @T_A=25°C unless otherwise specified

| Characteristic | Symbol | Max | Units | Test Condition |
|--------------------------|-----------------|-------------------------------------|-------|---|
| Forward Voltage* | V _F | 0.24 0.32 0.40 0.50 1.0 | V | I _F =0.1mA I _F =1mA I _F =10mA I _F =30mA I _F =100mA |
| Reverse Leakage Current* | I _R | 2 | μA | V _R =25V |
| Diode capacitance | C _T | 10 | pF | V _R =1V, f=1.0MHz |
| Reverse recovery time | t _{rr} | 5 | ns | I _F = I _R =10mA, I _{rr} =0.1×I _R , R _L =100Ω |

* Pulse width < 300 μs, duty cycle < 2%

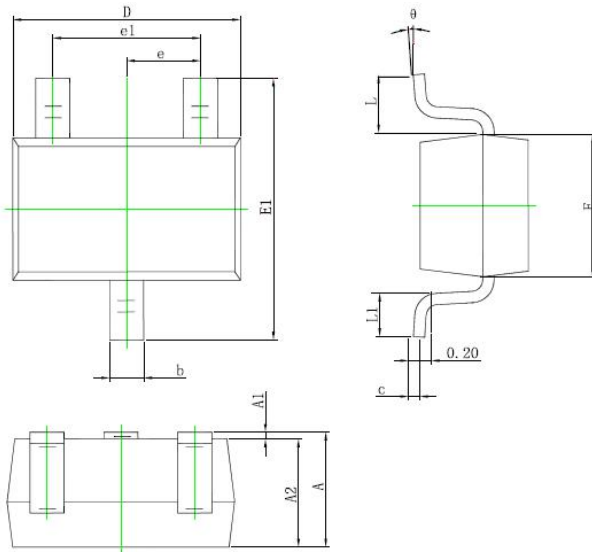
Ratings and Characteristics Curves


- China - Germany - Korea - Singapore - United States •
- <http://www.smc-diodes.com> - sales@smc-diodes.com •

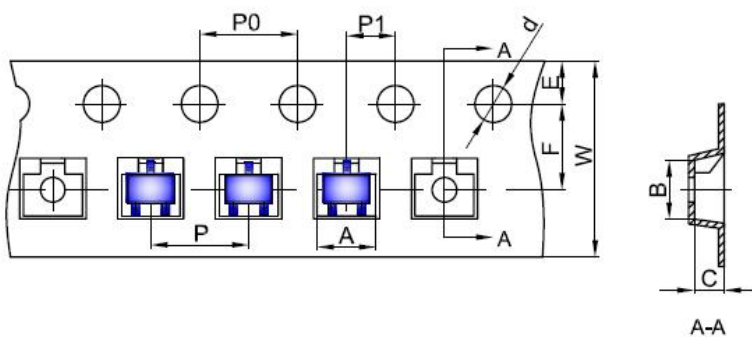
Ordering Information

| Device | Package | Shipping |
|-----------------|------------------|----------------|
| BAT54W/AW/CW/SW | SOT-323(Pb-Free) | 3000pcs / reel |

For information on tape and reel specifications, including part orientation and tape sizes, please refer to our tape and reel packaging specification.

Mechanical Dimensions SOT-323


| SYMBOL | Millimeters | | 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° |

Carrier Tape Specification SOT-323


| SYMBOL | Millimeters | |
|--------|-------------|------|
| | Min. | Max. |
| A | 2.20 | 2.30 |
| B | 2.50 | 2.60 |
| C | 1.14 | 1.24 |
| d | 1.45 | 1.65 |
| E | 1.65 | 1.85 |
| F | 3.40 | 3.60 |
| P | 3.90 | 4.10 |
| P0 | 3.90 | 4.10 |
| P1 | 1.90 | 2.10 |
| W | 7.90 | 8.30 |

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-  Cost Control Management
-  Shortage Management
-  Alternative Solution
-  Excess Inventory Management