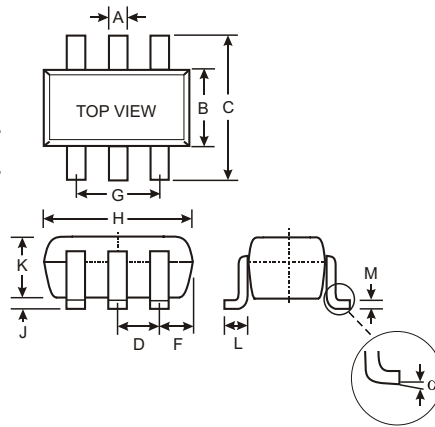


Features

- Low Forward Voltage Drop
- Fast Switching
- Ultra-Small Surface Mount Package
- PN Junction Guard Ring for Transient and ESD Protection

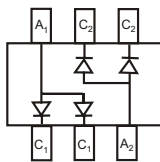
Mechanical Data

- Case: SOT-363, Molded Plastic
- Case Material - UL Flammability Rating Classification 94V-0
- Moisture sensitivity: Level 1 per J-STD-020A
- Terminals: Solderable per MIL-STD-202, Method 208
- Orientation: See Diagrams Below
- Weight: 0.006 grams (approx.)
- Marking: See Diagrams Below & Page 2

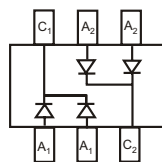


| SOT-363 | | |
|----------|--------------|------|
| Dim | Min | Max |
| A | 0.10 | 0.30 |
| B | 1.15 | 1.35 |
| C | 2.00 | 2.20 |
| D | 0.65 Nominal | |
| F | 0.30 | 0.40 |
| H | 1.80 | 2.20 |
| J | — | 0.10 |
| K | 0.90 | 1.00 |
| L | 0.25 | 0.40 |
| M | 0.10 | 0.25 |
| α | 0° | 8° |

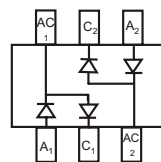
All Dimensions in mm



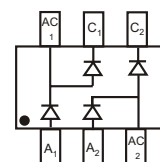
BAT54ADW*
Marking: KL6



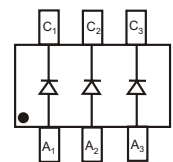
BAT54CDW*
Marking: KL7



BAT54SDW*
Marking: KL8



BAT54BRW
Marking: KLB



BAT54TW
Marking: KLA

*Symmetrical configuration, no orientation indicator.

Maximum Ratings @ T_A = 25°C unless otherwise specified

| Characteristic | Symbol | Value | Unit |
|--|--|-------------|------|
| Peak Repetitive Reverse Voltage Working Peak Reverse Voltage DC Blocking Voltage | V _{RRM} V _{RWM} V _R | 30 | V |
| Forward Continuous Current (Note 1) | I _F | 200 | mA |
| Repetitive Peak Forward Current (Note 1) | I _{FRM} | 300 | mA |
| Forward Surge Current (Note 1) | I _{FSM} | 600 | mA |
| Power Dissipation (Note 1) | P _d | 200 | mW |
| Thermal Resistance, Junction to Ambient Air (Note 1) | R _{θJA} | 625 | °C/W |
| Operating and Storage Temperature Range | T _j , T _{STG} | -65 to +125 | °C |

Electrical Characteristics @ T_A = 25°C unless otherwise specified

| Characteristic | Symbol | Min | Typ | Max | Unit | Test Condition |
|------------------------------------|--------------------|-----|-----|----------------------------------|------|--|
| Reverse Breakdown Voltage (Note 2) | V _{(BR)R} | 30 | — | — | V | I _R = 100μA |
| Forward Voltage (Note 2) | V _F | — | — | 240 320 400 500 1000 | mV | I _F = 0.1mA I _F = 1mA I _F = 10mA I _F = 30mA I _F = 100mA |
| Reverse Leakage Current (Note 2) | I _R | — | — | 2.0 | μA | V _R = 25V |
| Total Capacitance | C _T | — | — | 10 | pF | V _R = 1.0V, f = 1.0MHz |
| Reverse Recovery Time | t _{rr} | — | — | 5.0 | ns | I _F = 10mA through I _R = 10mA to I _R = 1.0mA, R _L = 100Ω |

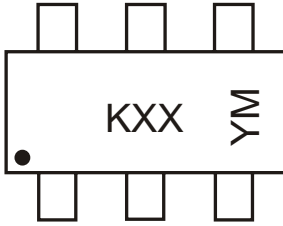
- Notes:
1. Device mounted on FR-4 PCB, 1 inch x 0.85 inch x 0.062 inch; pad layout as shown on Diodes Inc. suggested pad layout document AP02001, which can be found on our website at <http://www.diodes.com/datasheets/ap02001.pdf>.
 2. Short duration test pulse used to minimize self-heating effect.

Ordering Information (Note 3)

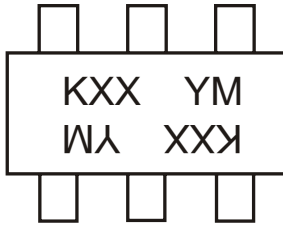
| Device | Packaging | Shipping |
|---|-----------|------------------|
| BAT54ADW-7 BAT54CDW-7 BAT54SDW-7 BAT54BRW-7 BAT54TW-7 | SOT-363 | 3000/Tape & Reel |

Notes: 3. For Packaging Details, go to our website at <http://www.diodes.com/datasheets/ap02007.pdf>.

Marking Information



KXX = Product Type Marking Code (See Page 1)
 YM = Date Code Marking
 Y = Year ex: N = 2002
 M = Month ex: 9 = September



KXX = Product Type Marking Code (See Page 1)
 For Symmetrical Configuration, No Orientation Indicator
 YM = Date Code Marking
 Y = Year ex: N = 2002
 M = Month ex: 9 = September

Date Code Key

| Year | 2001 | 2002 | 2003 | 2004 | 2005 | 2006 | 2007 | 2008 | 2009 |
|------|------|------|------|------|------|------|------|------|------|
| Code | M | N | P | R | S | T | U | V | W |

| Month | Jan | Feb | March | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec |
|-------|-----|-----|-------|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Code | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | O | N | D |