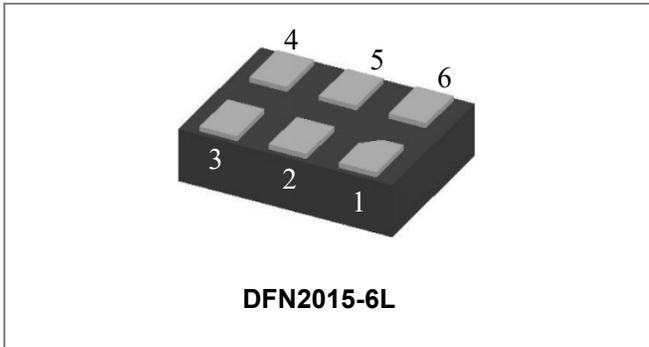


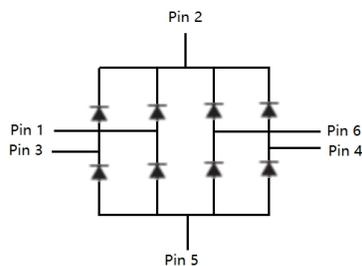
BAT54DF SURFACE MOUNT SCHOTTKY BARRIER DIODE



Features

- Low Turn-on Voltage
- Fast Switching
- PN Junction Guard Ring Transient and ESD Protection
- Designed for Surface Mount Application
- Plastic Material —UL Recognition Flammability Classification 94V-O
- Green Products in Compliance with the ROHS Directive
- This is a Pb – Free Device
- All SMC parts are traceable to the wafer lot
- Additional testing can be offered upon request

Schematic & Pin Configuration



Mechanical Characteristics

- Case: DFN2015-6L, Molded plastic
- Terminals: Plated Leads Solderable per MIL-STD-202, Method 208

Maximum Ratings @ $T_A=25^{\circ}\text{C}$ unless otherwise specified

| Characteristic | Symbol | Value | Units |
|--|---------------------------------|-------------|-----------------------------|
| Peak Repetitive Reverse Voltage Working Peak Reverse Voltage DC Blocking Voltage | V_{RRM} V_{RWM} V_R | 30 | V |
| Continuous Forward Current | I_O | 100 | mA |
| Forward Continuous Current | I_{FM} | 200 | mA |
| Repetitive Peak Forward Current @ $t \leq 1\text{s}, \delta \leq 0.5$ | I_{FRM} | 300 | mA |
| Non-Repetitive Peak Forward Surge Current @ $t=8.3\text{ms}$ | I_{FSM} | 600 | mA |
| Power Dissipation | P_D | 410 | mW |
| Thermal Resistance, Junction to Ambient | $R_{\theta JA}$ | 305 | $^{\circ}\text{C}/\text{W}$ |
| Junction and Storage Temperature Range | T_J, T_{STG} | -55 to +150 | $^{\circ}\text{C}$ |

Electrical Characteristics @T_A=25°C unless otherwise specified

| Characteristics | Symbol | Condition | Typ. | Max. | Units |
|---|-----------------|---|------------|--------|-------|
| Forward Voltage Drop* Pin1 to Pin2; Pin3 to Pin2; Pin4 to Pin2; Pin6 to Pin2; Pin5 to Pin1; Pin5 to Pin3; Pin5 to Pin4; Pin5 to Pin6; | V _{F1} | @ 200uA, Pulse, T _J = 25 °C | 0.26 | 0.30 | V |
| Reverse Current* Pin1 to Pin2; Pin3 to Pin2; Pin4 to Pin2; Pin6 to Pin2; Pin5 to Pin1; Pin5 to Pin3; Pin5 to Pin4; Pin5 to Pin6; | I _{R1} | @V _R = 30V, Pulse, T _J = 25 °C @V _R = 3.3V, Pulse, T _J = 60 °C | 0.7 0.4 | 1 2 | μA |
| Capacitance between terminals Pin1 to Pin2; Pin3 to Pin2; Pin4 to Pin2; Pin6 to Pin2; Pin5 to Pin1; Pin5 to Pin3; Pin5 to Pin4; Pin5 to Pin6; | C _T | @V _R = 1 V, T _C =25, f _{SIG} = 1MHz | 5 | 10 | pF |

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

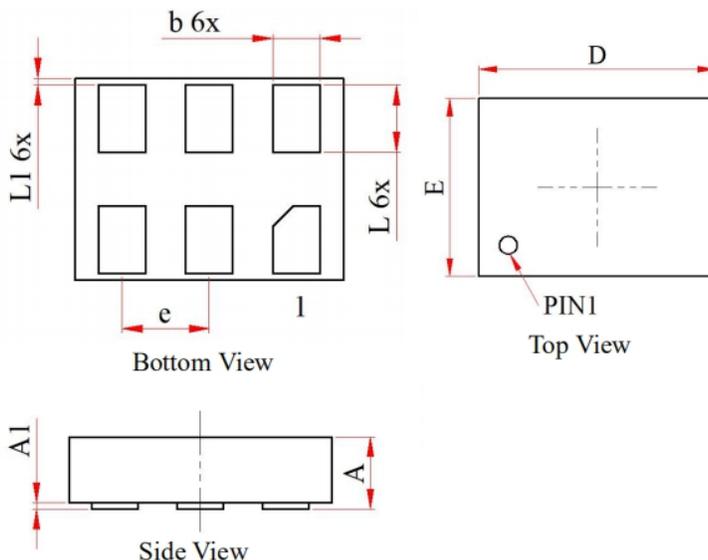
Ordering Information

| Device | Package | Shipping |
|---------|------------|--------------|
| BAT54DF | DFN2015-6L | 3000pcs/reel |

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

Marking Diagram


DF = Marking Code

Mechanical Dimensions DFN2015-6L


| SYMBOL | Millimeters | | |
|--------|-------------|-------|-------|
| | Normal | MIN. | MAX. |
| A | - | 0.500 | 0.600 |
| A1 | - | 0.025 | 0.075 |
| D | 2.000 | 1.900 | 2.100 |
| E | 1.500 | 1.400 | 1.600 |
| b | 0.350 | 0.300 | 0.400 |
| L | 0.500 | 0.450 | 0.550 |
| L1 | 0.050 | 0.010 | 0.090 |
| e | 0.650 BSC | | |

Ratings and Characteristics Curves

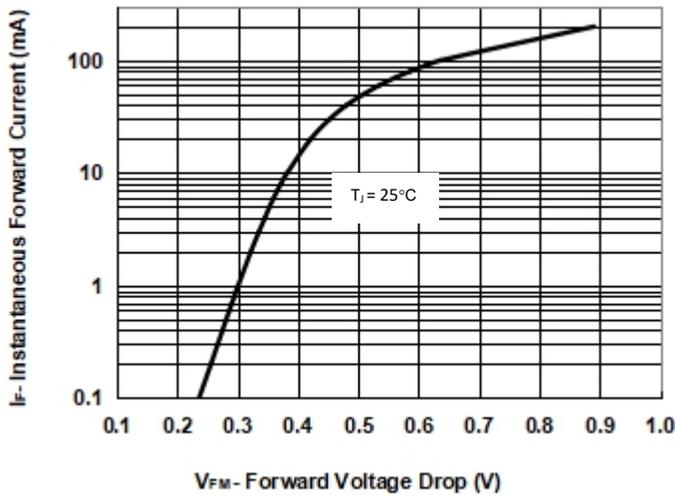


Fig. 1 - Typical Forward Characteristics

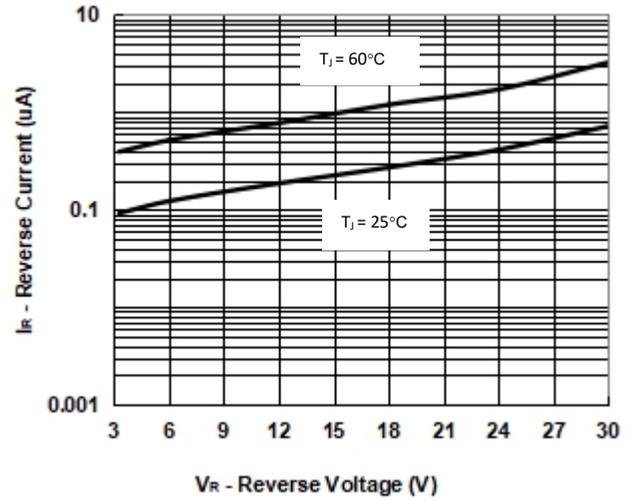


Fig. 2 - Typical Reverse Characteristics

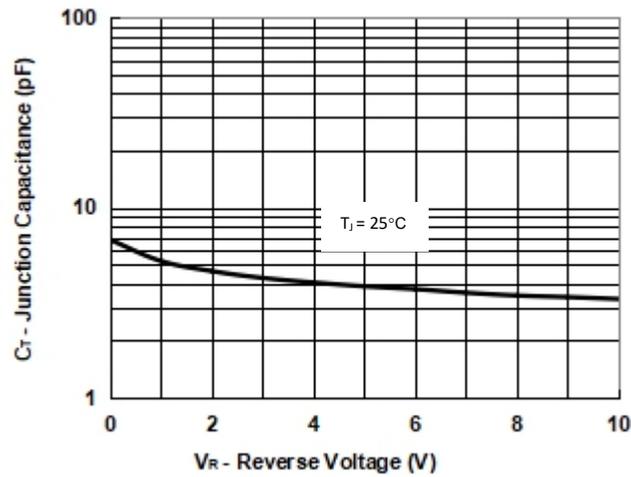


Fig. 3 - Typical Junction Capacitance

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