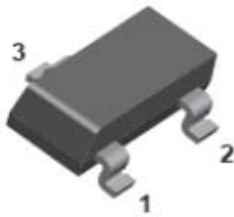


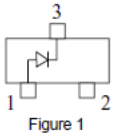


## Schottky Barrier Diode

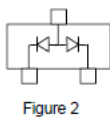


### Features

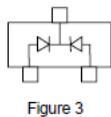
- Epoxy meets UL-94 V-0 flammability rating, halogen-free
- Moisture Sensitivity Level 1
- Low Forward Voltage
- Surface Mount device



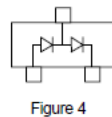
BAT54



BAT54A



BAT54C



BAT54S

### Marking

|        |     |
|--------|-----|
| BAT54  | KL1 |
| BAT54A | KL2 |
| BAT54C | KL3 |
| BAT54S | KL4 |

### ■Maximum Rating, ( $T_A=25^{\circ}\text{C}$ Unless otherwise specified)

| Item                                                        | Symbol          | Unit                 | Value       |
|-------------------------------------------------------------|-----------------|----------------------|-------------|
| Continuous Reverse Voltage                                  | $V_R$           | V                    | 30          |
| Forward Continuous Current                                  | $I_F$           | mA                   | 200         |
| Non-Repetitive Peak Forward Surge Current @ $t < 1\text{s}$ | $I_{FSM}$       | A                    | 0.6         |
| Total Power Dissipation @ $T_A=25^{\circ}\text{C}$          | $P_D$           | mW                   | 200         |
| Thermal Resistance, Junction to Ambient                     | $R_{\theta JA}$ | $^{\circ}\text{C/W}$ | 500         |
| Junction Temperature                                        | $T_J$           | $^{\circ}\text{C}$   | -55 to +125 |
| Storage temperature range                                   | $T_{stg}$       | $^{\circ}\text{C}$   | -55 to +125 |

### ■Ordering Information (Example)

| PREFERED P/N | PACKING CODE | UNIT WEIGHT(g)    | MINIMUM PACKAGE(pcs) | INNER BOX QUANTITY(pcs) | OUTER CARTON QUANTITY(pcs) | DELIVERY MODE |
|--------------|--------------|-------------------|----------------------|-------------------------|----------------------------|---------------|
| BAT54        | F2           | Approximate 0.008 | 3000                 | 30000                   | 120000                     | 7" reel       |
| BAT54A       | F2           | Approximate 0.008 | 3000                 | 30000                   | 120000                     | 7" reel       |
| BAT54C       | F2           | Approximate 0.008 | 3000                 | 30000                   | 120000                     | 7" reel       |
| BAT54S       | F2           | Approximate 0.008 | 3000                 | 30000                   | 120000                     | 7" reel       |

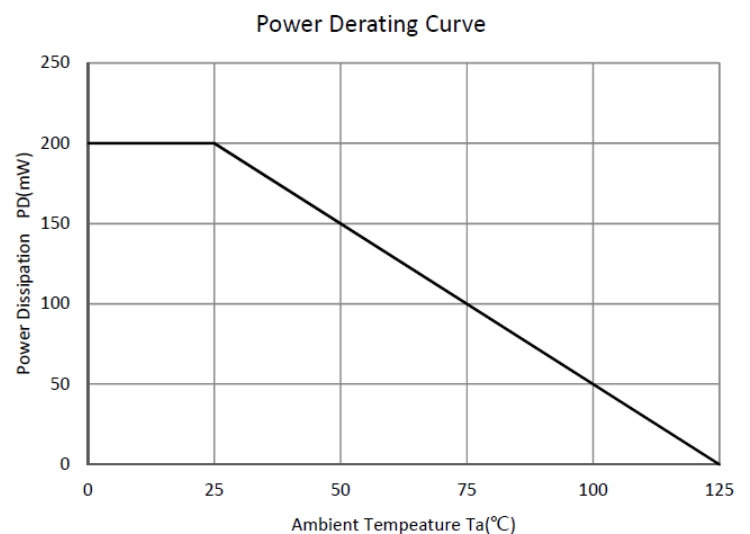
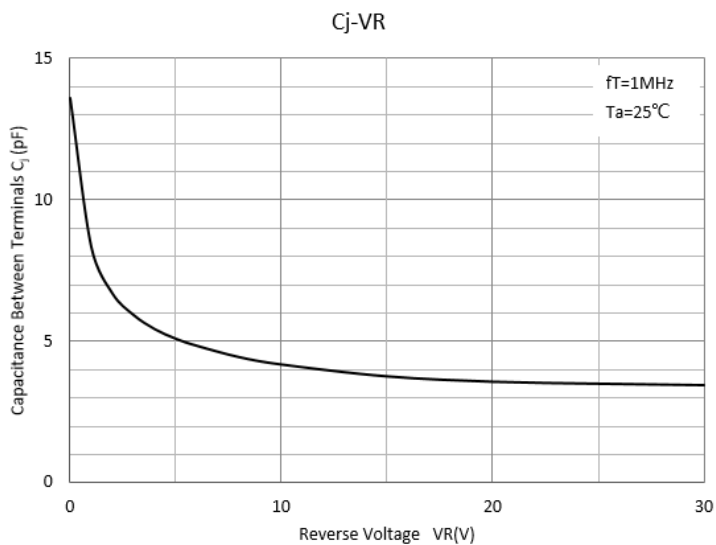
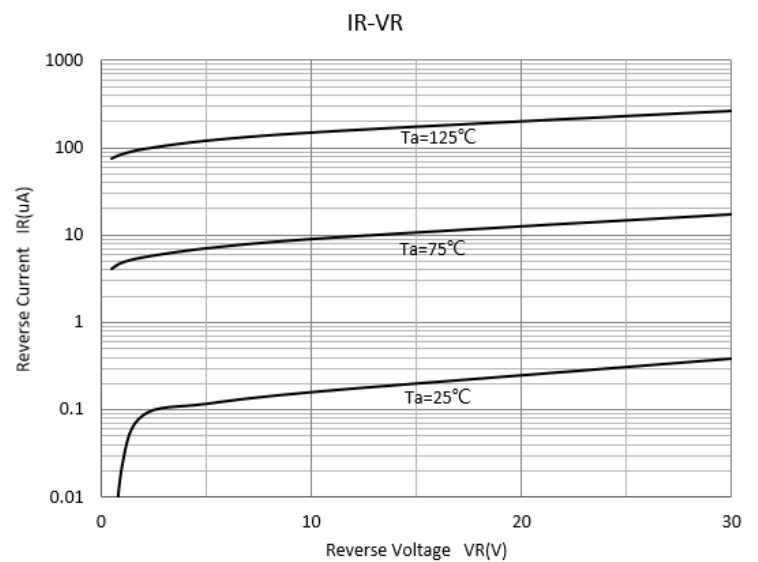
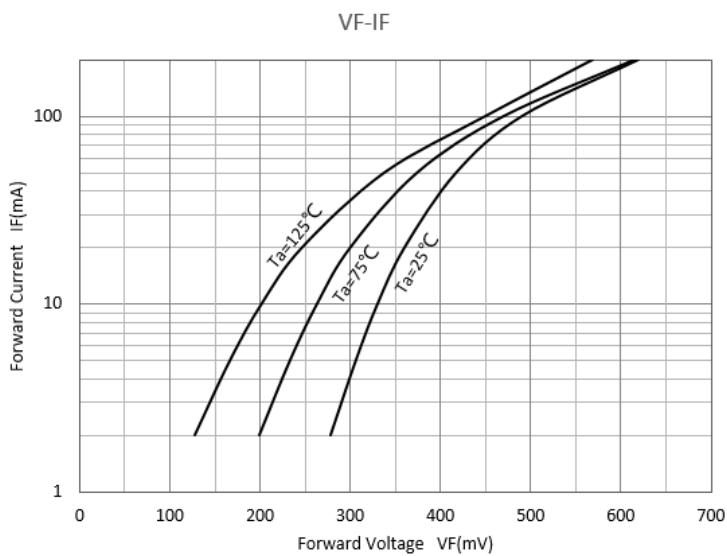


## BAT54 THRU BAT54S

### ■ Electrical Characteristics (T<sub>a</sub>=25°C Unless otherwise specified)

| Item                                  | Symbol          | Unit | Conditions                                                    | Value |
|---------------------------------------|-----------------|------|---------------------------------------------------------------|-------|
| Maximum Instantaneous Forward Voltage | V <sub>F</sub>  | V    | I <sub>FM</sub> =0.1mA                                        | 0.24  |
|                                       |                 |      | I <sub>FM</sub> =1mA                                          | 0.32  |
|                                       |                 |      | I <sub>FM</sub> =10mA                                         | 0.4   |
|                                       |                 |      | I <sub>FM</sub> =30mA                                         | 0.5   |
|                                       |                 |      | I <sub>FM</sub> =100mA                                        | 1     |
| Maximum DC Reverse Current            | I <sub>R</sub>  | uA   | V <sub>R</sub> =25V                                           | 2     |
| Typical Junction Capacitance (MAX)    | C <sub>J</sub>  | pF   | f=1.0MHz, V <sub>R</sub> =1.0V                                | 10    |
| Reverse Recovery Time (MAX)           | T <sub>rr</sub> | ns   | I <sub>F</sub> =I <sub>R</sub> =10mA, I <sub>(REC)</sub> =1mA | 5     |

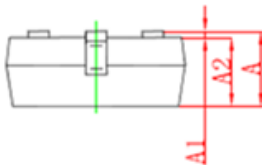
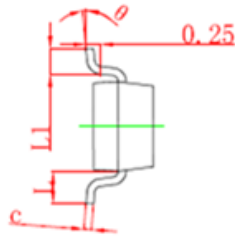
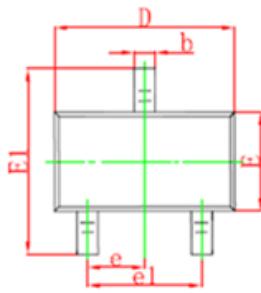
### ■ Typical Characteristics





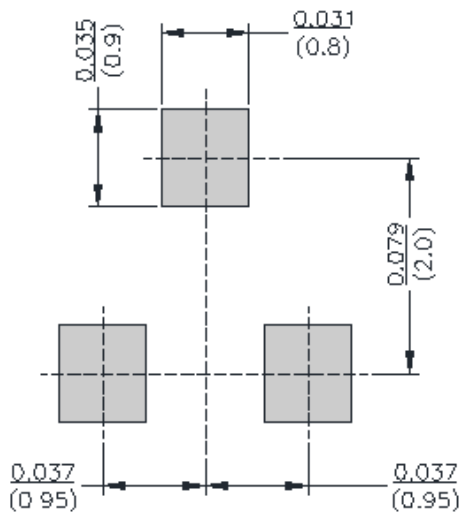
## BAT54 THRU BAT54S

### ■SOT-23 Package Outline Dimensions



| Symbol | Dimensions In Millimeters |       | Dimensions In Inches |       |
|--------|---------------------------|-------|----------------------|-------|
|        | Min                       | Max   | Min                  | Max   |
| A      | 0.900                     | 1.150 | 0.035                | 0.045 |
| A1     | 0.000                     | 0.100 | 0.000                | 0.004 |
| A2     | 0.900                     | 1.050 | 0.035                | 0.041 |
| b      | 0.300                     | 0.500 | 0.012                | 0.020 |
| c      | 0.100                     | 0.200 | 0.004                | 0.008 |
| D      | 2.800                     | 3.000 | 0.110                | 0.118 |
| E      | 1.200                     | 1.400 | 0.047                | 0.055 |
| E1     | 2.250                     | 2.550 | 0.089                | 0.100 |
| e      | 0.950TYP                  |       | 0.037TYP             |       |
| e1     | 1.800                     | 2.000 | 0.071                | 0.079 |
| L      | 0.550REF                  |       | 0.022REF             |       |
| L1     | 0.300                     | 0.500 | 0.012                | 0.020 |
| θ      | 0°                        | 8°    | 0°                   | 8°    |

### ■SOT-23 Soldering Footprint





## BAT54 THRU BAT54S

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### Disclaimer

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