

Surface Mount Schottky Barrier Diodes

FEATURES

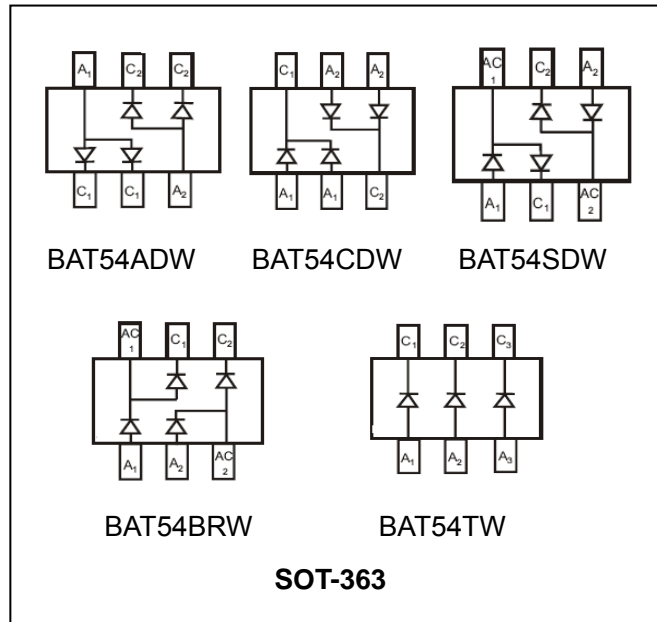
- Low forward voltage drop.
- Fast switching.
- Ultra-small surface mount package.
- PN Junction guard ring for transient and ESD protection.
- Available in lead free version.



APPLICATIONS

- High speed switching application.

ORDERING INFORMATION



| Type No. | Marking | Package Code |
|----------|---------|--------------|
| BAT54TW | KLA | SOT-363 |
| BAT54ADW | KL6 | SOT-363 |
| BAT54CDW | KL7 | SOT-363 |
| BAT54SDW | KL8 | SOT-363 |
| BAT54BRW | KLB | SOT-363 |

MAXIMUM RATING @ Ta=25°C unless otherwise specified

| Symbol | Characteristic | Value | Unit |
|-----------------|---|-------------|------|
| V_{RRM} | Repetitive peak reverse Voltage | 30 | V |
| V_{RWM} | Working peak reverse voltage | | |
| V_R | DC reverse voltage | | |
| I_F | Forward continuous current | 200 | mA |
| I_{FRM} | Repetitive peak forward current | 300 | mA |
| I_{FSM} | Forward surge current @t<1.0s | 0.6 | A |
| P_D | Power Dissipation | 200 | mW |
| $R_{\theta JA}$ | Thermal resistance, Junction to ambient air | 625 | °C/W |
| T_j, T_{stg} | Operating and Storage Temperature | -65 to +125 | °C |

ELECTRICAL CHARACTERISTICS @ Ta=25°C unless otherwise specified

| Parameter | Symbol | Test conditions | MIN | MAX | UNIT |
|---------------------------|-------------|---|-----|---------------------------------|---------|
| Reverse breakdown voltage | $V_{(BR)R}$ | $I_R=100\mu A$ | 30 | | V |
| Average reverse current | I_R | $V_R=25V$ | | 2.0 | μA |
| Forward voltage | V_F | $I_F=0.1mA$ $I_F=1mA$ $I_F=10mA$ $I_F=30mA$ $I_F=100mA$ | | 0.24 0.32 0.4 0.5 1 | V |
| Total Capacitance | C_T | $V_R=1.0V, f=1.0MHz$ | | 10 | pF |
| Reverse Recovery time | t_{rr} | $I_F=I_R=10mA, R_L=100\Omega$ | | 5.0 | ns |

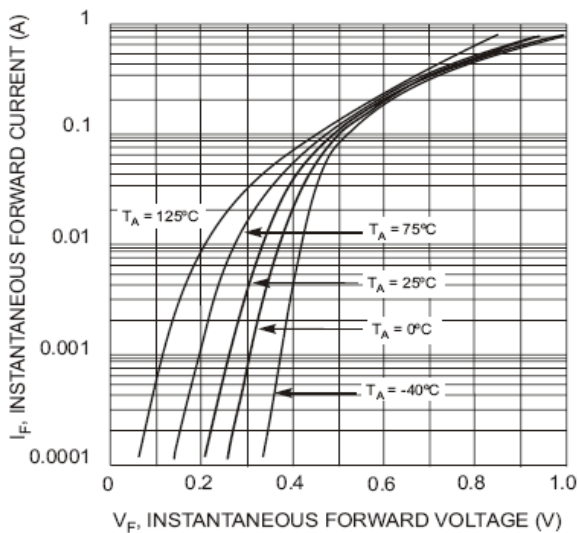
TYPICAL CHARACTERISTICS @ Ta=25°C unless otherwise specified


Fig. 1 Forward Characteristics

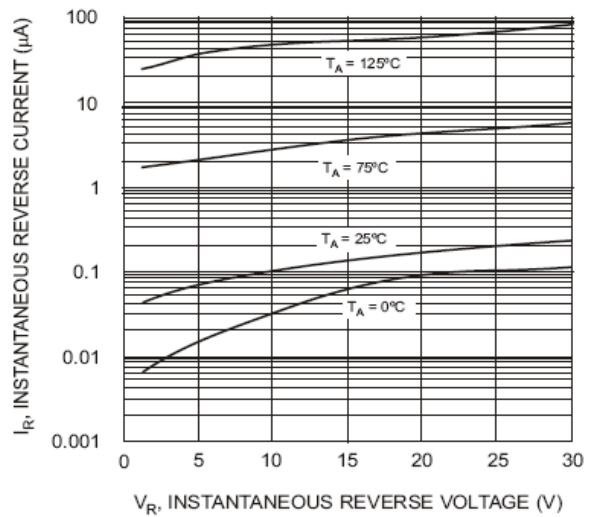
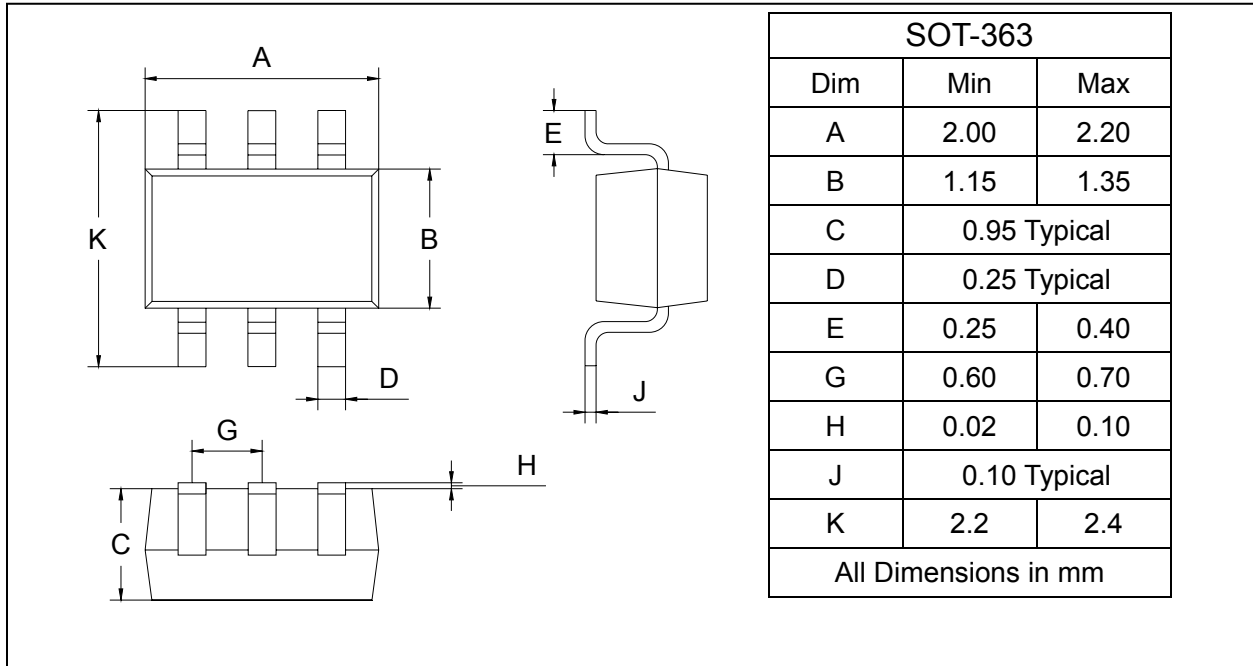


Fig. 2 Typical Reverse Characteristics

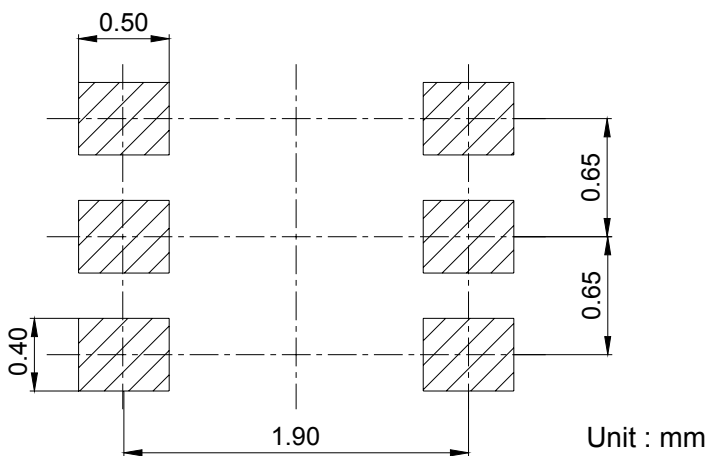
PACKAGE OUTLINE

Plastic surface mounted package

SOT-363



SOLDERING FOOTPRINT



PACKAGE INFORMATION

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

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