

MSKSEMI

SEMICONDUCTOR



ESD



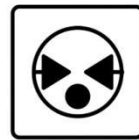
TVS



TSS



MOV



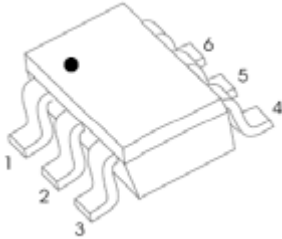
GDT



PLED

Product data sheet

SOT-363

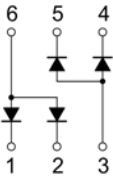


**BAT54ADW /BAT54BRW /
BAT54CDW /BAT54SDW /BAT54TW
BAT54DW/BAT54JW**

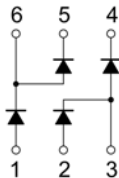
SCHOTTKY BARRIER DIODE ARRAYS

FEATURES

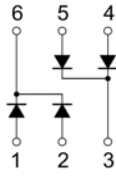
- Low Forward Voltage Drop
- Fast Switching
- Small Surface Mount Package
- PN Junction Guard Ring for Transient and ESD Protection
- Available in Lead Free Version



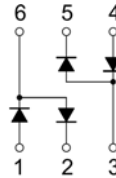
BAT54ADW



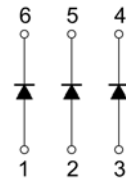
BAT54BRW



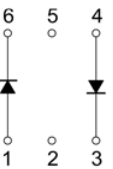
BAT54CDW



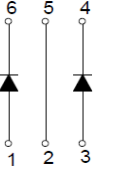
BAT54SDW



BAT54TW



BAT54DW



BAT54JW

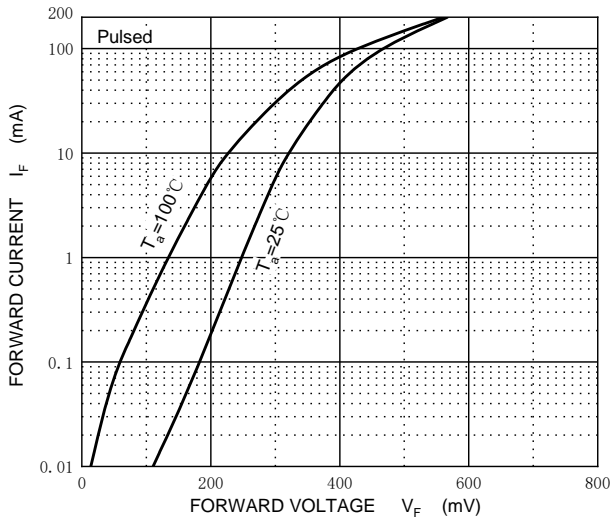
MAXIMUM RATINGS ($T_a=25^\circ\text{C}$ unless otherwise noted)

| Symbol | Parameter | Value | Unit |
|-----------------|--|------------|--------------------|
| V_{RRM} | Repetitive Peak Reverse Voltage | 30 | V |
| V_{RWM} | Peak Working Reverse Voltage | | |
| V_R | DC Blocking Voltage | | |
| I_O | Forward Continuous Current | 200 | mA |
| I_{FRM} | Repetitive Peak Forward Current | 300 | mA |
| I_{FSM} | Non-repetitive Peak Forward Surge Current @ $t=8.3\text{ms}$ | 600 | |
| P_D | Power Dissipation | 200 | mW |
| $R_{\theta JA}$ | Thermal Resistance From Junction To Ambient | 500 | $^\circ\text{C/W}$ |
| T_j | Operating Junction Temperature Range | -40 ~ +125 | $^\circ\text{C}$ |
| T_{stg} | Storage Temperature Range | -55 ~ +150 | $^\circ\text{C}$ |

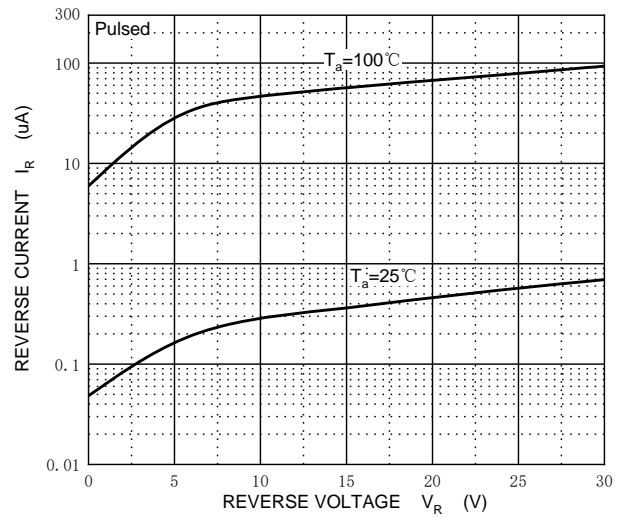
ELECTRICAL CHARACTERISTICS ($T_a=25^\circ\text{C}$ unless otherwise specified)

| Parameter | Symbol | Test conditions | Min | Typ | Max | Unit |
|-----------------------|------------|--|-----|-----|------|---------------|
| Reverse voltage | $V_{(BR)}$ | $I_R=100\mu\text{A}$ | 30 | | | V |
| Reverse current | I_R | $V_R=25\text{V}$ | | | 2 | μA |
| Forward voltage | V_F | $I_F=1\text{mA}$ | | | 320 | mV |
| | | $I_F=10\text{mA}$ | | | 400 | |
| | | $I_F=30\text{mA}$ | | | 500 | |
| | | $I_F=100\text{mA}$ | | | 1000 | |
| Total capacitance | C_{tot} | $V_R=1\text{V}, f=1\text{MHz}$ | | | 10 | pF |
| Reverse recovery time | t_{rr} | $I_F=I_R=10\text{mA}, I_{rr}=0.1\times I_R, R_L=100\Omega$ | | | 5 | ns |

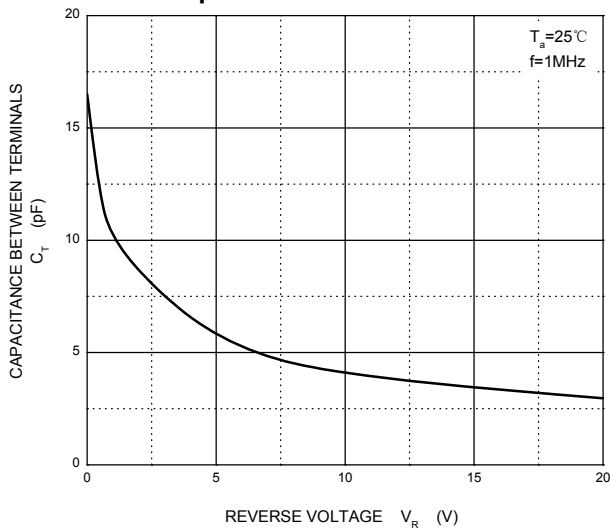
Forward Characteristics



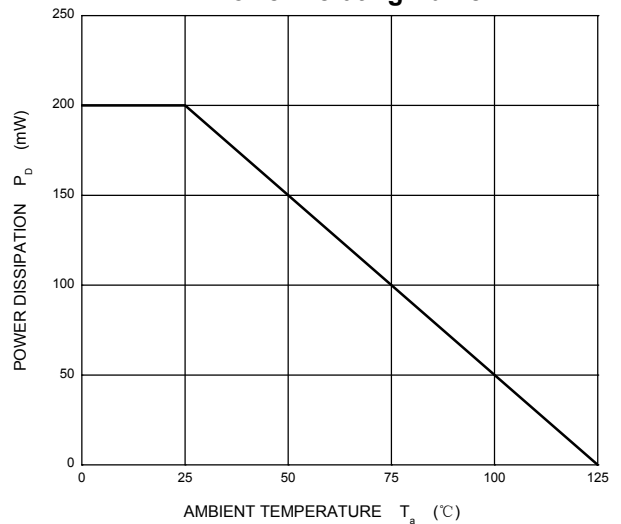
Reverse Characteristics



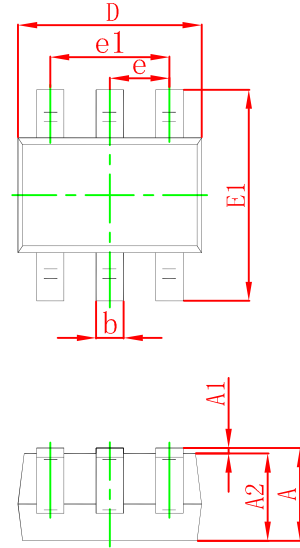
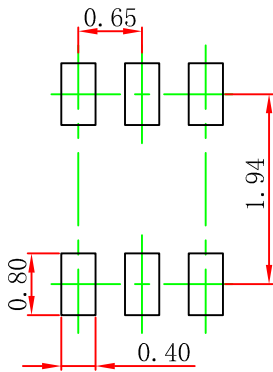
Capacitance Characteristics



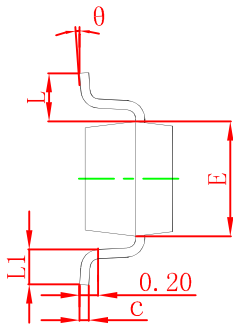
Power Derating Curve



SOT-363



- Note:
1. Controlling dimension: in millimeters.
 2. General tolerance: $\pm 0.05\text{mm}$.
 3. The pad layout is for reference purposes only.



| Symbol | Dimensions In Millimeters | | Dimensions In 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 | 0.150 | 0.350 | 0.006 | 0.014 |
| c | 0.100 | 0.150 | 0.004 | 0.006 |
| D | 2.000 | 2.200 | 0.079 | 0.087 |
| E | 1.150 | 1.350 | 0.045 | 0.053 |
| E1 | 2.150 | 2.400 | 0.085 | 0.094 |
| 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° |

REEL SPECIFICATION

| P/N | PKG | QTY |
|----------|---------|------|
| BAT54XXW | SOT-363 | 3000 |

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