

BAT54TDW DIODE

SCHOTTKY BARRIER (DUAL) DIODES

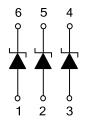
■ DESCRIPTION

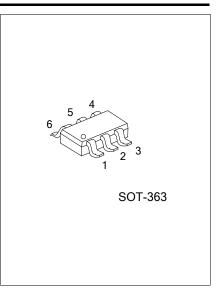
Planar Schottky barrier diodes are encapsulated in the SOT-363 small plastic SMD package. Single diodes and dual diodes with different pin configuration are available.

■ FEATURES

- * Low forward voltage
- * Guard ring protected
- * Small plastic SMD package

■ SYMBOL

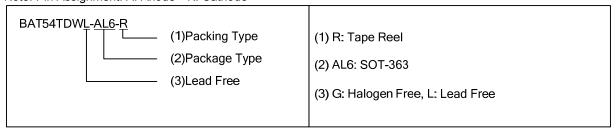




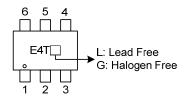
■ ORDERING INFORMATION

| Ordering Number | | Daalaaaa | Pin Assignment | | | | | | Da alsia a | |
|-----------------|-----------------|----------|----------------|----|----|----|----|----|------------|--|
| Lead Free | Halogen Free | Package | 1 | 2 | 3 | 4 | 5 | 6 | Packing | |
| BAT54TDWL-AL6-R | BAT54TDWG-AL6-R | SOT-363 | A1 | A2 | А3 | K3 | K2 | K1 | Tape Reel | |

Note: Pin Assignment: A: Anode K: Cathode



MARKING



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BAT54TDW DIODE

■ ABSOLUTE MAXIMUM RATINGS

| PARAMETER | SYMBOL | RATINGS | UNIT |
|---|------------------|------------|------|
| PER DIODE | | | |
| Continuous Reverse Voltage | V_R | 30 | V |
| Continuous Forward Current | l _F | 200 | mA |
| Repetitive Peak Forward Current (t _P <1s, δ≤0.5) | I _{FRM} | 300 | mA |
| Non-repetitive Peak Forward Current (t _P <10ms) | I _{FSM} | 600 | mA |
| Junction Temperature | T_J | +125 | °C |
| Storage Temperature | T_{STG} | -60 ~ +150 | °C |
| PER DEVICE | | | |
| Power Dissipation (T _A ≤25°C) | P_{D} | 230 | mW |

Note: Absolute maximum ratings are those values beyond which the device could be permanently damaged. Absolute maximum ratings are stress ratings only and functional device operation is not implied.

■ THERMAL DATA

| PARAMETER | SYMBOL | RATINGS | UNIT | |
|---------------------|---------------|---------|------|--|
| Junction to Ambient | θ_{JA} | 625 | °C/W | |

■ ELECTRICAL CHARACTERISTICS (T_A = 25°C, unless otherwise specified.)

| PARAMETER | SYMBOL | TEST CONDITIONS | | TYP | MAX | UNIT |
|-----------------------|-----------------|--|--|-----|------|------|
| | | $I_F = 0.1 \text{mA}$ | | | 240 | mV |
| | | I _F = 1mA | | | 320 | mV |
| Forward Voltage | V_{F} | I _F = 10mA | | | 400 | mV |
| | | I _F = 30mA | | | 500 | mV |
| | | I _F = 100mA | | | 1000 | mV |
| Reverse Current | I_R | V _R = 25V | | | 2 | μΑ |
| Reverse Recovery Time | t _{rr} | When switched from I_F =10mA to I_R = 10mA, R_L = 100 Ω measured at I_R = 1mA | | | 5 | ns |
| Diode Capacitance | Съ | $f = 1 MHz, V_R = 1V$ | | | 10 | pF |

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