

# DATA SHEET

## BAT54TW/ADW/CDW/SDW

### SURFACE MOUNT SCHOTTKY DIODE ARRAYS

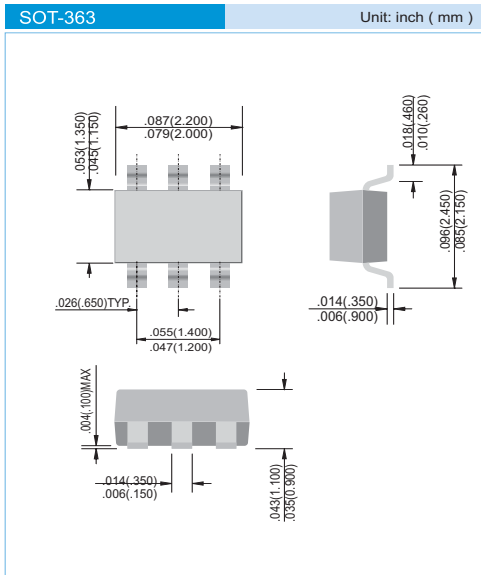
|                |                 |              |                  |
|----------------|-----------------|--------------|------------------|
| <b>VOLTAGE</b> | <b>30 Volts</b> | <b>POWER</b> | <b>200mWatts</b> |
|----------------|-----------------|--------------|------------------|

#### FEATURES

Isolated diode arrays for significant board space savings  
 Surface mount package ideally suited for automatic insertion  
 Extremely Fast Switching Speed  
 Very Low VF: 0.347V (Typ) at IF = 10mA  
 Pb free product are available : 99% Sn above can meet Rohs environment substance directive request

#### MECHANICAL DATA

Case: SOT-363 plastic  
 Terminals: Solderable per MIL-STD-202, Method  
 Approx Weight: 0.008 gram  
 Marking: BAT54TW: L4, BAT54ADW: L42,  
 BAT54CDW: L43, BAT54SDW: L44



#### ABSOLUTE RATINGS (each diode)

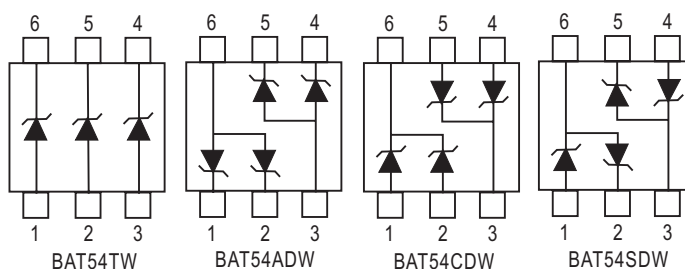
| PARAMETER                  | Sym bol   | Value | Units |
|----------------------------|-----------|-------|-------|
| Maximum Reverse Voltage    | $V_R$     | 30    | V     |
| Peak Reverse Voltage       | $V_{RRM}$ | 30    | V     |
| Continuous Forward Current | $I_F$     | 0.2   | A     |

#### THERMAL CHARACTERISTICS

| PARAMETER  | Sym bol         | Value      | Units         |
|--|-----------------|------------|---------------|
| Power Dissipation (Note 1)                       | $P_{TOT}$       | 200        | mW            |
| Thermal Resistance, Junction to Ambient (Note 1) | $R_{\theta JA}$ | 625        | $^{\circ}C/W$ |
| Junction Temperature                             | $T_J$           | -55 to 125 | $^{\circ}C$   |
| Storage Temperature                              | $T_{STG}$       | -55 to 150 | $^{\circ}C$   |

NOTE:

1. FR-5 Board = 1.0 x 0.75 x 0.062 in.



## ELECTRICAL CHARACTERISTICS (each diode) (TA=25°C, unless otherwise noted)

| PARAMETER                 | Sym bol  | TestC ondition  | M N . | TYP . | MAX .                               | Units   |
|---------------------------|----------|---|-------|-------|-------------------------------------|---------|
| Reverse Breakdown Voltage | $V_{BR}$ | $I_R=100 \mu A$   | 30    |       |                                     | V       |
| Reverse Current           | $I_R$    | $V_R=25 V$  |       |       | 2.0                                 | $\mu A$ |
| Forward Voltage           | $V_F$    | $I_F=0.1mA$<br>$I_F=1.0mA$<br>$I_F=10mA$<br>$I_F=30mA$<br>$I_F=100mA$ |       |       | 0.24<br>0.32<br>0.40<br>0.50<br>1.0 | V       |
| Total Capacitance         | $C_T$    | $V_R=1V, f=1.0MHz$  |       |       | 10                                  | pF      |

## ELECTRICAL CHARACTERISTICS CURVES

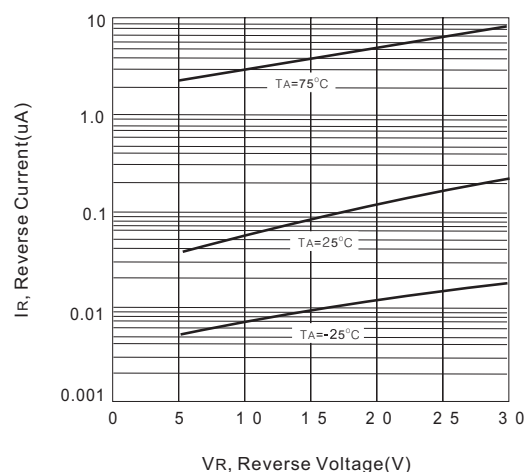


Fig. 1- Typical Reverse Leakage

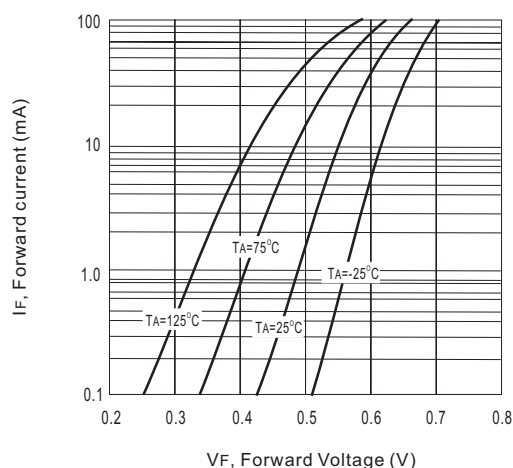


Fig. 2- Typical Forward Voltage

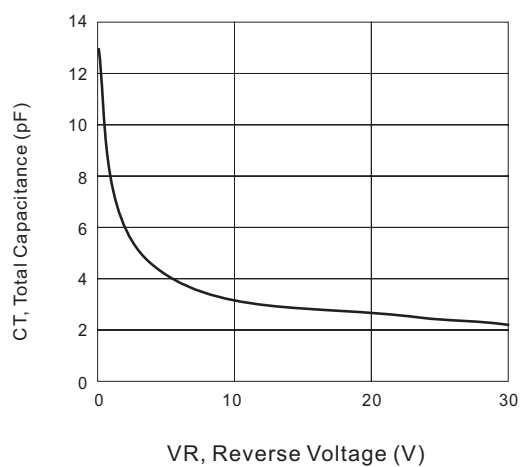


Fig. 3- Typical Total capacitance



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## ORDER INFORMATION

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- Packing information
  - T/R - 12K per 13" plastic Reel
  - T/R - 3.0K per 7" plastic Reel

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## LEGAL STATEMENT

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### IMPORTANT NOTICE

This information is intended to unambiguously characterize the product in order to facilitate the customer's evaluation of the device in the application. The information will help the customer's technical experts determine that the device is compatible and interchangeable with similar devices made by other vendors. The information in this data sheet is believed to be reliable and accurate. The specifications and information herein are subject to change without notice. New products and improvements in products and product characterization are constantly in process. Therefore, the factory should be consulted for the most recent information and for any special characteristics not described or specified.

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