



BAT54TW / ADW / CDW / SDW / DW

SURFACE MOUNT SCHOTTKY DIODE ARRAYS

VOLTAGE 30 Volts **POWER** 225mWatts

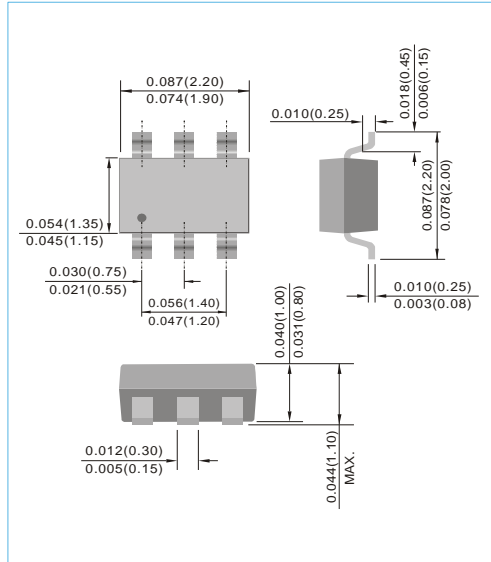
SOT-363 Unit : inch(mm)

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
- In compliance with EU RoHS 2002/95/EC directives

MECHANICAL DATA

- Case: SOT-363 plastic
- Terminals: Solderable per MIL-STD-750, Method 2026
- Approx. Weight: 0.0002 ounce, 0.006 gram



ABSOLUTE RATINGS (each diode)

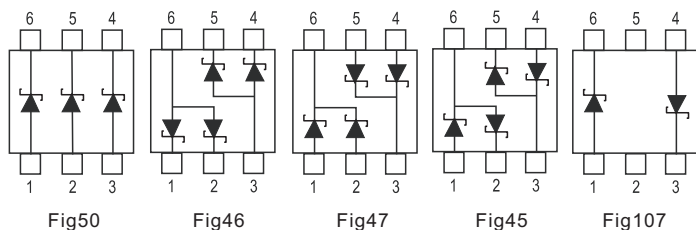
| Parameter | Symbol | BAT54TW | BAT54ADW | BAT54CDW | BAT54SDW | BAT54DW | Units |
|----------------------------|-----------|---------|----------|----------|----------|---------|-------|
| Marking Code | - | L4 | L42 | L43 | L44 | L41 | - |
| Maximum Reverse Voltage | V_R | 30 | | | | | V |
| Peak Reverse Voltage | V_{RRM} | 30 | | | | | V |
| Continuous Forward Current | I_F | 0.2 | | | | | A |
| Circuit Figure | - | Fig 50 | Fig 46 | Fig 47 | Fig 45 | Fig 107 | - |

THERMAL CHARACTERISTICS

| Parameter | Symbol | Value | Units |
|--------------------------------------------------|-----------------|------------|---------------|
| Power Dissipation (Note 1) | P_{TOT} | 225 | mW |
| Thermal Resistance, Junction to Ambient (Note 1) | $R_{\theta JA}$ | 550 | $^{\circ}C/W$ |
| Thermal Resistance, Junction to Lead | $R_{\theta JL}$ | 220 | $^{\circ}C/W$ |
| Junction Temperature | T_J | -55 to 125 | $^{\circ}C$ |
| Storage Temperature | T_{STG} | -55 to 150 | $^{\circ}C$ |

NOTE:

- FR-4 Board Minimum pad.





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

| Parameter | Symbol | Test Condition | MIN. | 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 | μA |
| Forward Voltage | V_F | $I_F=0.1mA$ $I_F=1.0mA$ $I_F=10mA$ $I_F=30mA$ $I_F=100mA$ | | | 0.24 0.32 0.40 0.50 1.00 | V |
| Total Capacitance | C_T | $V_R=1V, f=1.0MHz$ | | | 10 | pF |

ELECTRICAL CHARACTERISTICS CURVES

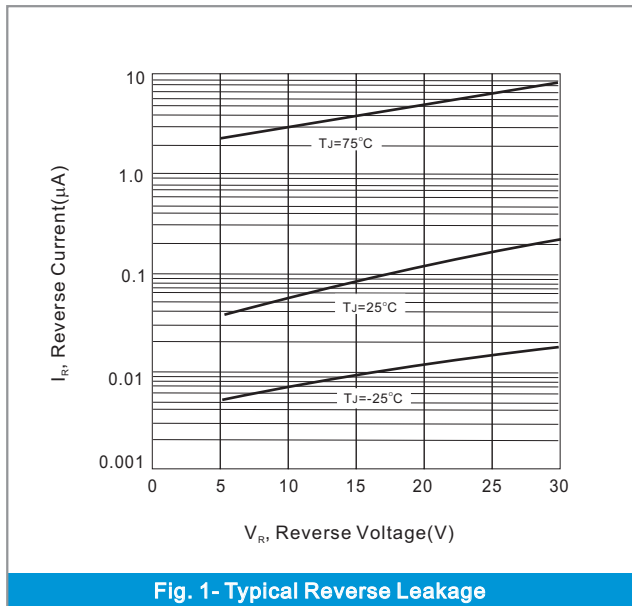


Fig. 1- Typical Reverse Leakage

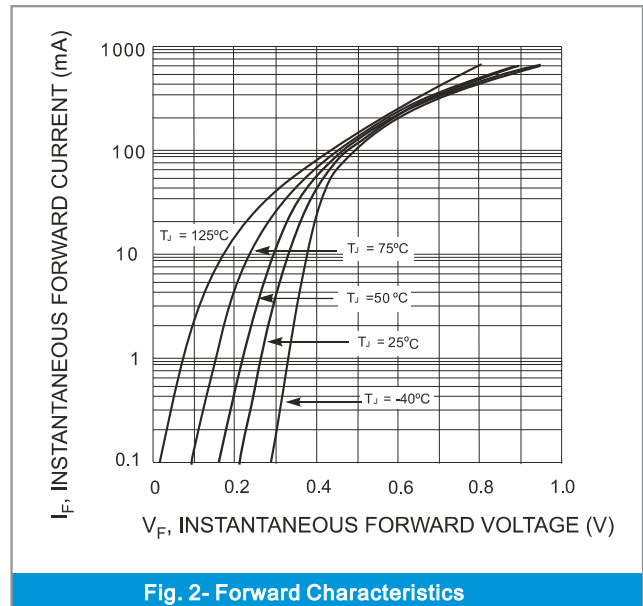


Fig. 2- Forward Characteristics

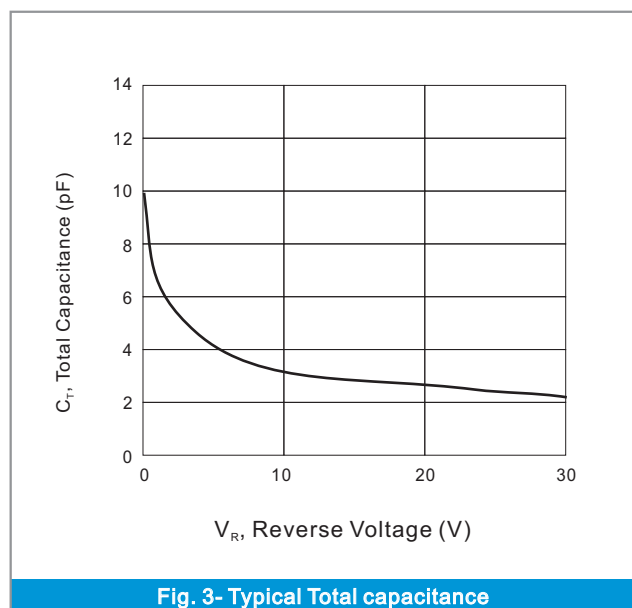
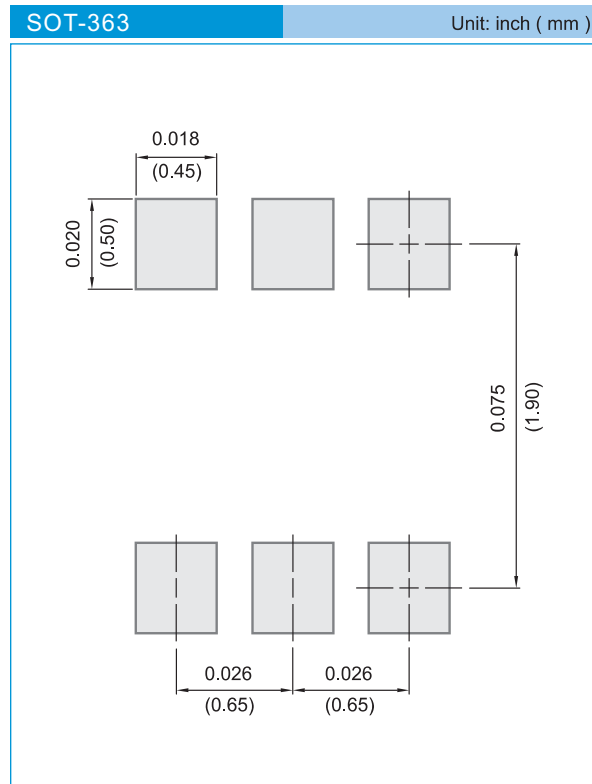


Fig. 3- Typical Total capacitance



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MOUNTING PAD LAYOUT



ORDER INFORMATION

- Packing information
T/R - 10K per 13" plastic Reel
T/R - 3K per 7" plastic Reel

LEGAL STATEMENT

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