



BAT54TB6/ATB6/CTB6/STB6/DTB6

SURFACE MOUNT SCHOTTKY DIODE ARRAYS

| | | | |
|----------------|-----------------|--------------|------------------|
| VOLTAGE | 30 Volts | POWER | 200mWatts |
|----------------|-----------------|--------------|------------------|

| | |
|----------------|-------------------|
| SOT-563 | Unit: inch (mm) |
|----------------|-------------------|

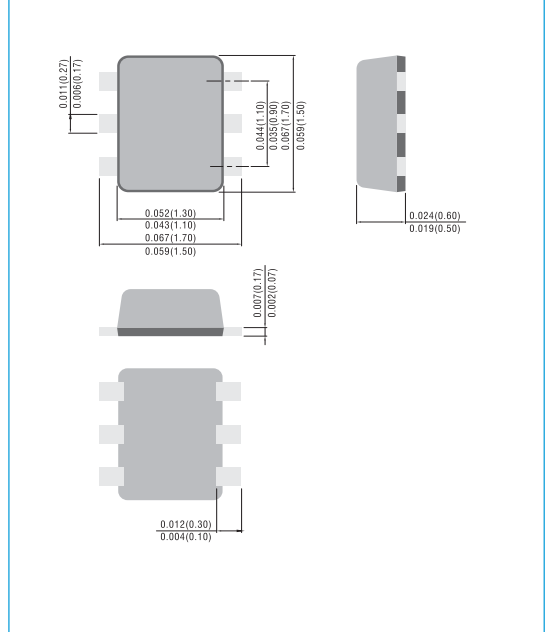
FEATURES

- 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-563 plastic
- Terminals : Solderable per MIL-STD-750, Method 2026
- Approx Weight : 0.003 gram
- Marking :

| | | | | |
|----------|-----------|-----------|-----------|-----------|
| BAT54TB6 | BAT54ATB6 | BAT54CTB6 | BAT54STB6 | BAT54DTB6 |
| TH | TJ | TY | T6 | TL |



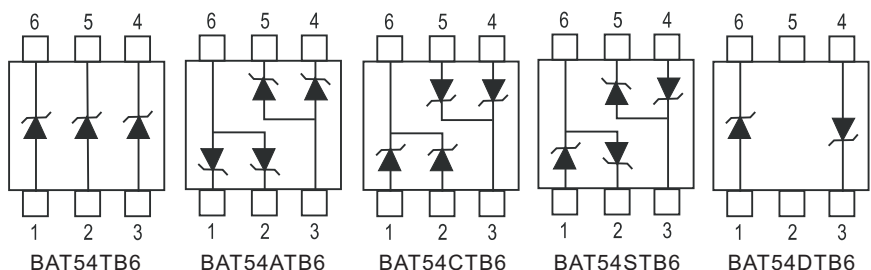
ABSOLUTE RATINGS (each diode)

| Parameter | Symbol | 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 | Symbol | Value | Units |
|--|------------------|------------|-------|
| Power Dissipation (Note 1) | P _{TOT} | 200 | mW |
| Thermal Resistance, Junction to Ambient (Note 1) | R _{θJA} | 625 | °C/W |
| Junction Temperature | T _J | -55 to 125 | °C |
| Storage Temperature | T _{STG} | -55 to 150 | °C |

NOTE:
1. FR-4 Board = 70 x 60 x 1mm.



PRELIMINARY

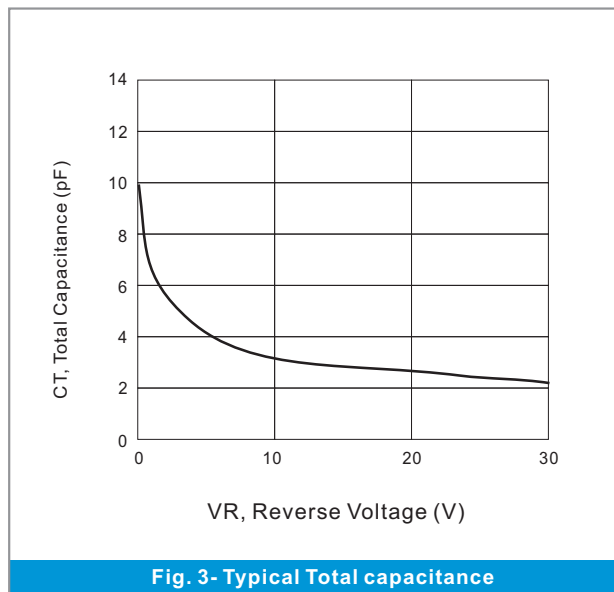
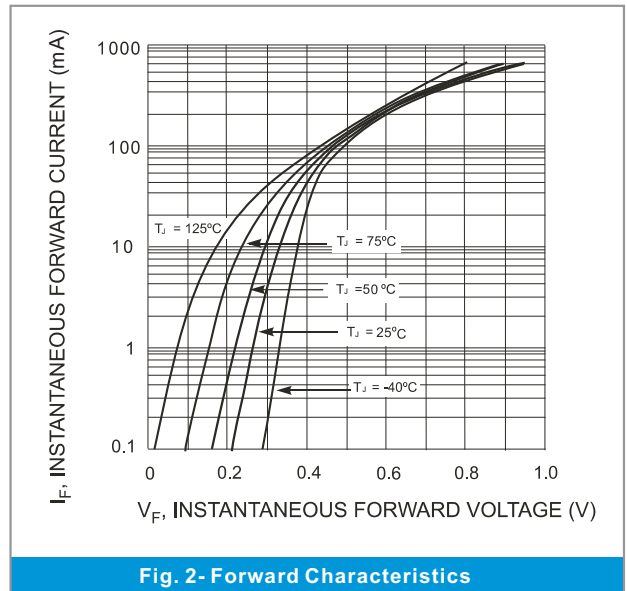
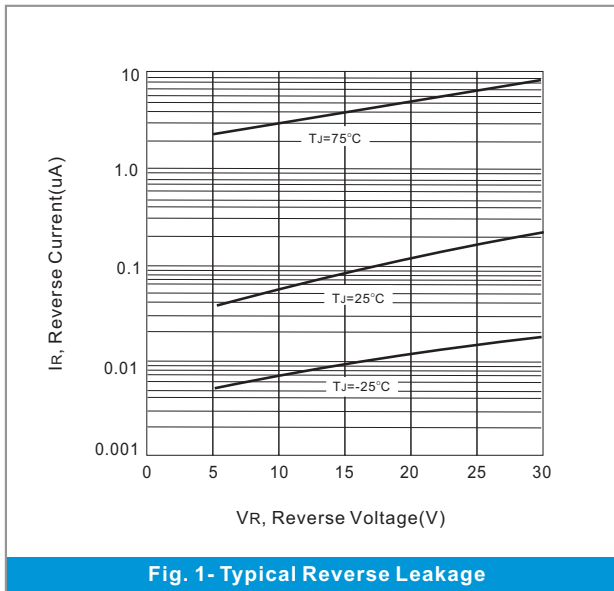


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ELECTRICAL CHARACTERISTICS (each diode) (TA=25°C, unless otherwise noted)

| 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 | $I_F=0.1mA$ | - | - | 0.24 | V |
| | | $I_F=1.0mA$ | - | - | 0.32 | |
| | | $I_F=10mA$ | - | 0.347 | 0.40 | |
| | | $I_F=30mA$ | - | - | 0.50 | |
| | | $I_F=100mA$ | - | - | 1.00 | |
| Total Capacitance | C_T | $V_R=1V, f=1.0MHz$ | - | - | 10 | pF |

ELECTRICAL CHARACTERISTICS CURVES



PRELIMINARY