



DATA SHEET

BAS21A/C/S

SURFACE MOUNT, HIGH VOLTAGE, DUAL SWITCHING DIODES

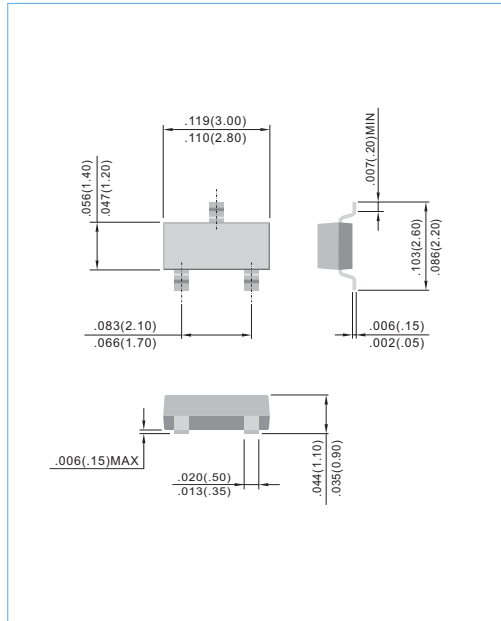
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|----------------|------------------|--------------|------------------|---------------|-----------------|
| VOLTAGE | 250 Volts | POWER | 250mWatts | SOT-23 | Unit: inch (mm) |
|----------------|------------------|--------------|------------------|---------------|-----------------|

FEATURES

- High reverse beardown voltage.
- Fast switching speed.
- Low reverse leakage current.
- Surface mount package ideally suited for automatic insertion.
- Galvanically isolated dual configurations to save board space.
- In compliance with EU RoHS 2002/95/EC directives

MECHANICAL DATA

Case: SOT-23, Plastic
 Terminals: Solderable per MIL-STD-750, Method 2026
 Approx. Weight: 0.008 gram
 Marking : BAS21A:21A, BAS21C:21C, BAS21S:21S

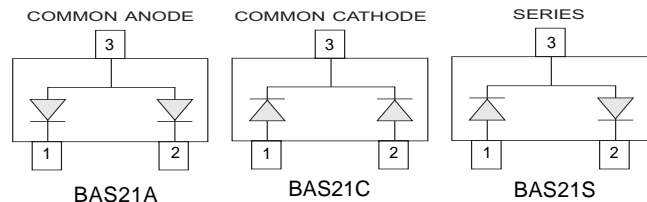


ABSOLUTE RATINGS

| PARAMETER | Symbol | Value | Units |
|---|-----------|-------|-------|
| Maximum Reverse Voltage | V_R | 250 | V |
| Peak Reverse Voltage | V_{RRM} | 250 | V |
| Average Rectified Current at Temp=25°C | I_o | 0.2 | A |
| Non-repetitive Peak Forward Surge Current at t=1.0 μs | I_{FSM} | 4.0 | A |

THERMAL CHARACTERISTICS

| PARAMETER | Symbol | Value | Units |
|---|-----------------|------------|-------|
| Power Dissipation | P_{TOT} | 250 | mW |
| Thermal Resistance, Junction to Ambient | $R_{\theta JA}$ | 357 | °C/W |
| Junction Temperature | T_J | 150 | °C |
| Storage Temperature | T_{STG} | -55 to 150 | °C |

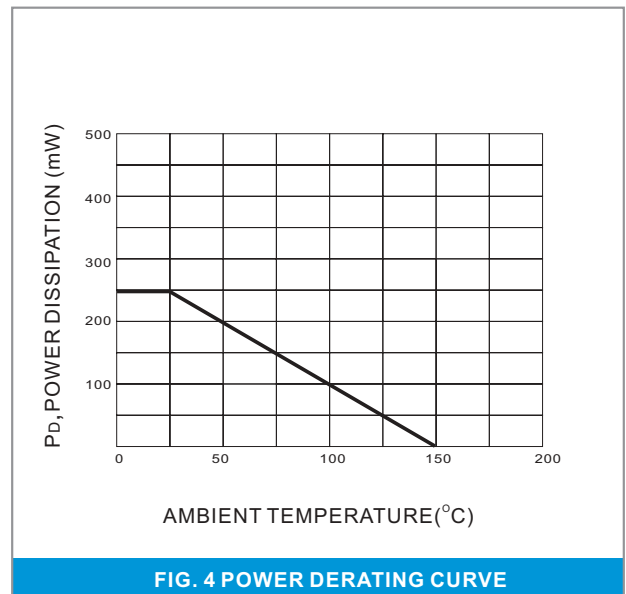
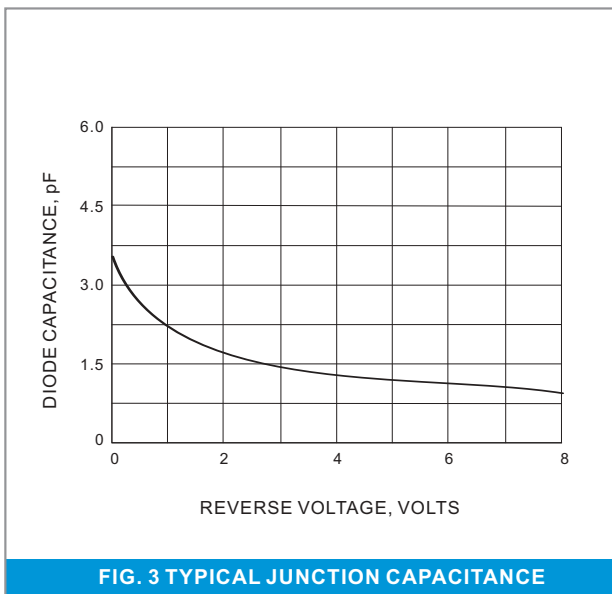
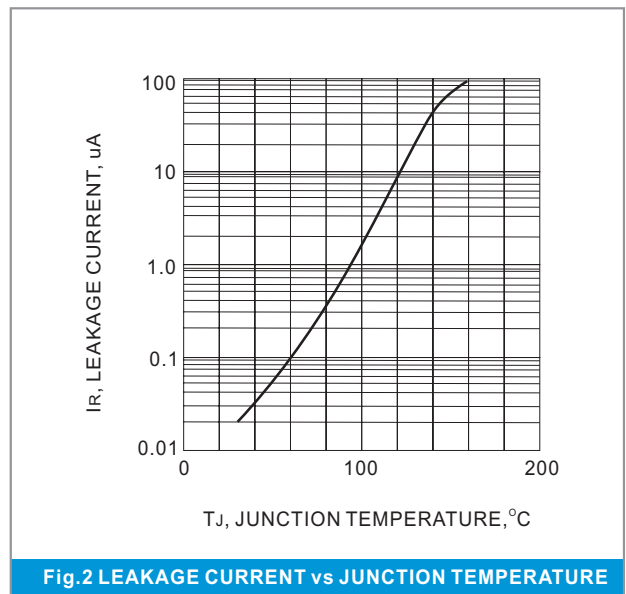
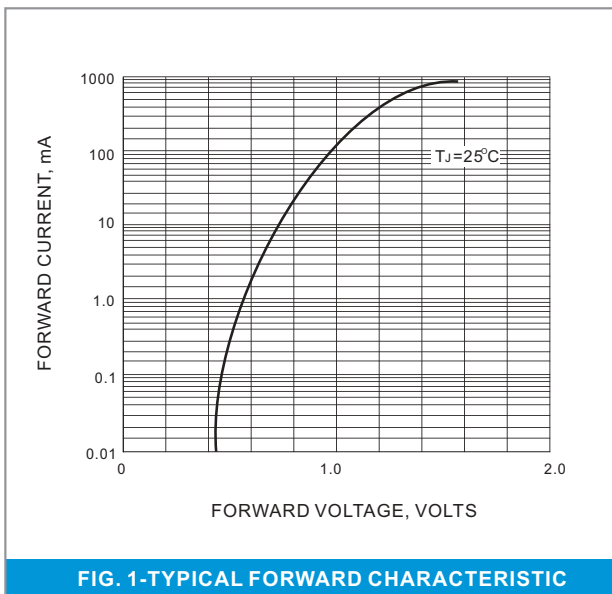




ELECTRICAL CHARACTERISTICS

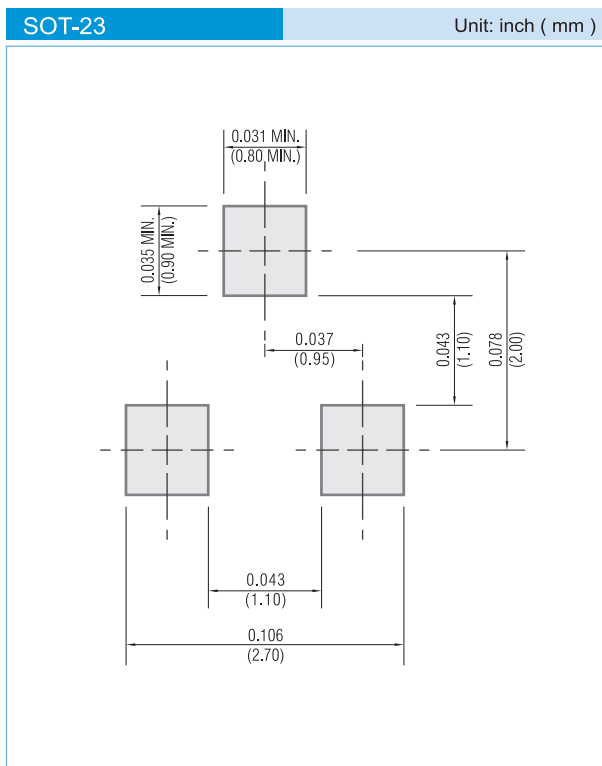
| PARAMETER | Symbol | Test Condition | MIN. | TYP. | MAX. | Units |
|------------------------------|------------|---|------|------|--------------|---------|
| Reverse Breakdown Voltage | $V_{(BR)}$ | $I_R=100 \mu A$ | -- | -- | 250 | V |
| Reverse Current | I_R | $V_R=200 V$ $V_R=200 V, T_J = 150^\circ C$ | -- | -- | 0.1 100 | μA |
| Forward Voltage | V_F | $I_F=1.0mA$ $I_F=100mA$ | -- | -- | 0.70 1.00 | V |
| Maximum Junction Capacitance | C_J | $V_R=0V, f=1.0MHz$ | -- | -- | 5.0 | pF |
| Reverse Recovery Time | T_{rr} | $I_F=I_R=30mA, R_L=100\Omega$ | -- | -- | 50 | ns |

ELECTRICAL CHARACTERISTICS CURVES





MOUNTING PAD LAYOUT



ORDER INFORMATION

- Packing information
 - T/R - 12K per 13" plastic Reel
 - T/R - 3K per 7" plastic Reel

LEGAL STATEMENT

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