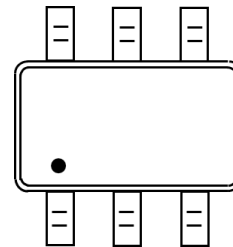


### FEATURES AND BENEFITS

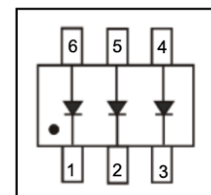
| Product Summary |       |        |
|-----------------|-------|--------|
| $I_F$           | 200mA | @25 °C |
| $V_F$           | 1.05V | @100mA |
| $V_{RRM}$       | 250V  | @25 °C |

- For General Purpose Switching Applications
- High Frequency Inverters
- RoHS Compliant / Green EMC UL Flammability Classification Rating 94V-0
- Matte Tin (Sn) Lead finish Solderable per MIL-STD-202, Method 208
- Moisture Sensitivity: Level 1 per J-STD-020

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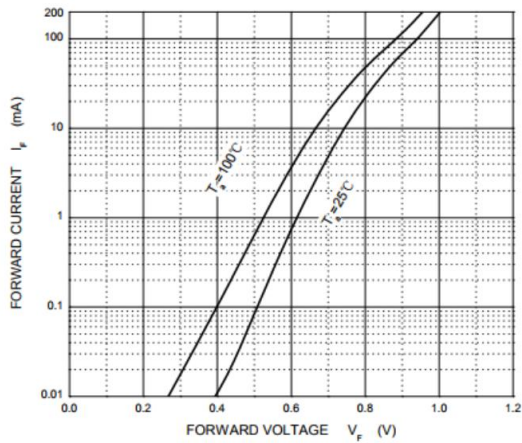
Equivalent Circuit



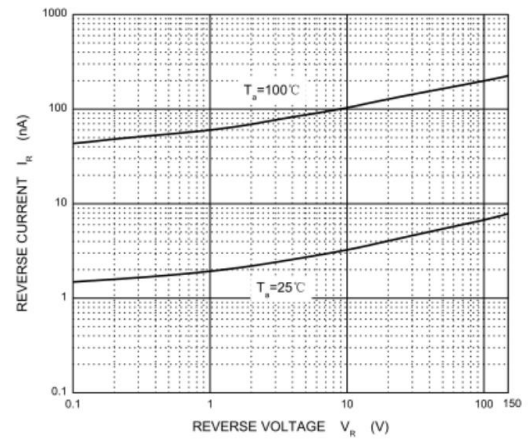
| Maximum Ratings (TA = 25 °C unless otherwise noted)  |              |             |      |
|------------------------------------------------------|--------------|-------------|------|
| PARAMETER                                            | SYMBOL       | VALUE       | UNIT |
| Repetitive Peak Reverse Voltage                      | $V_{RRM}$    | 250         | V    |
| Working Peak Reverse Voltage                         | $V_{RWM}$    | 250         | V    |
| DC Blocking Voltage                                  | $V_R$        | 250         | V    |
| RMS Reverse Voltage                                  | $V_{R(RMS)}$ | 177         | V    |
| Forward Continuous Current                           | $I_{FM}$     | 200         | mA   |
| Non-Repetitive Peak Forward Surge Current (@t=8.3ms) | $I_{FSM}$    | 2.5         | A    |
| Power Dissipation                                    | $P_{TM}$     | 200         | mW   |
| Junction Temperature                                 | $T_J$        | 150         | °C   |
| Storage Temperature                                  | $T_{STG}$    | -65 to +150 | °C   |

| ELECTRICAL CHARACTERISTICS (TA = 25 °C unless otherwise noted) |             |                      |     |      |      |
|----------------------------------------------------------------|-------------|----------------------|-----|------|------|
| PARAMETER                                                      | SYMBOL      | CONDITION            | MIN | MAX  | UNIT |
| Reverse Breakdown Voltage                                      | $V_{(BR)R}$ | $I_R=100\mu A$       | 250 |      | V    |
| Forward Voltage                                                | $V_F$       | $I_F = 100mA$        |     | 1.05 | V    |
|                                                                |             | $I_F = 200mA$        |     | 1.25 |      |
| Reverse Current                                                | $I_R$       | $V_R= 200V$          |     | 100  | nA   |
| Capacitance                                                    | $C_T$       | $V_R = 6V, f = 1MHz$ |     | 5.00 | pF   |
| Reverse Recovery Time                                          | $t_{rr}$    | $V_R=6V, I_F = 5mA$  |     | 50   | ns   |

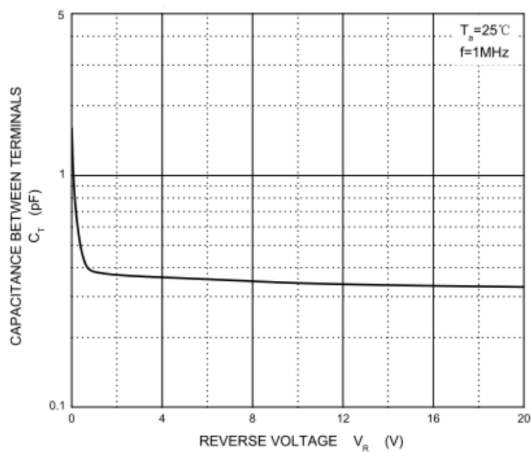
### RATING AND CHARACTERISTICS CURVES



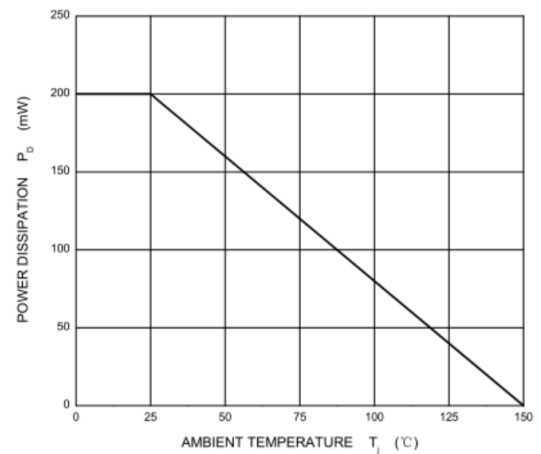
Forward current ( $I_F$ ) vs Forward voltage ( $V_F$ )



Reverse current ( $I_R$ ) vs Reverse voltage ( $V_R$ )



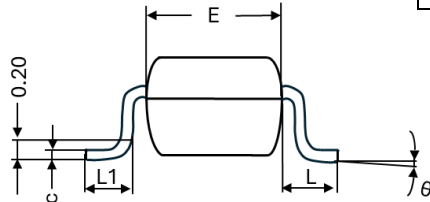
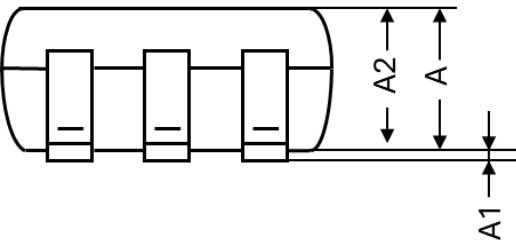
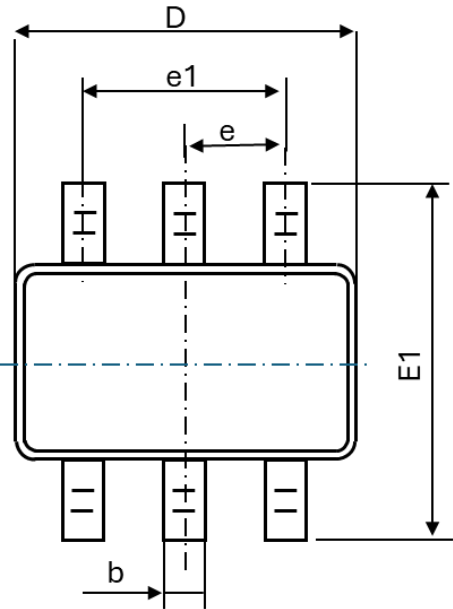
Capacitance Characteristics



Power Derating Curve

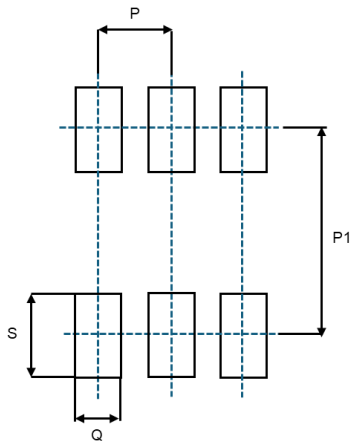
**PACKAGE OUTLINE DIMENSIONS**

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| Symbol   | MIN       | MAX  |
|----------|-----------|------|
| A        | 0.90      | 1.00 |
| A1       | 0.00      | 0.10 |
| A2       | 0.90      | 1.00 |
| b        | 0.15      | 0.35 |
| c        | 0.10      | 0.15 |
| D        | 2.00      | 2.20 |
| E        | 1.15      | 1.35 |
| E1       | 2.15      | 2.40 |
| e        | 0.650TYP. |      |
| e1       | 1.20      | 1.40 |
| L        | 0.525REF. |      |
| L1       | 0.26      | 0.45 |
| θ        | 0°        | 8°   |
| Unit: mm |           |      |

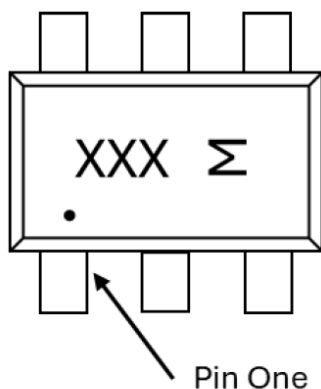
**SUGGESTED PAD LAYOUT**



| Symbol   | Type  |
|----------|-------|
| P        | 0.65  |
| P1       | 1.94  |
| Q        | 0.40  |
| S        | 0.816 |
| Unit: mm |       |

### DEVICE MARKING CODE AND ORDERING INFORMATION

| DEVICE  | Marking | Quantity    | Packing     |
|---------|---------|-------------|-------------|
| BAS21TW | XJK     | 3000/7"Reel | Tape & Reel |



XXX: Product Marking Code

Σ : Date Code (Rotate 90° counterclockwise)

| Odd Year | Even Year |
|----------|-----------|
| 1        | E         |
| 2        | F         |
| 3        | H         |
| 4        | J         |
| 5        | K         |
| 6        | L         |
| 7        | N         |
| 8        | P         |
| 9        | U         |
| T        | X         |
| V        | Y         |
| C        | Z         |

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