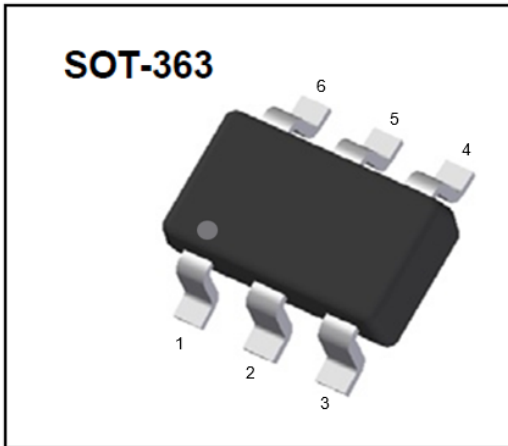


Switching Diodes



Features

- We declare that the material of product compliance with RoHS requirements and Halogen Free
- Surface mount package ideally suited for automatic Insertion
- Moisture Sensitivity Level 1
- Reverse voltage: 250 V
- Average forward current : 200mA

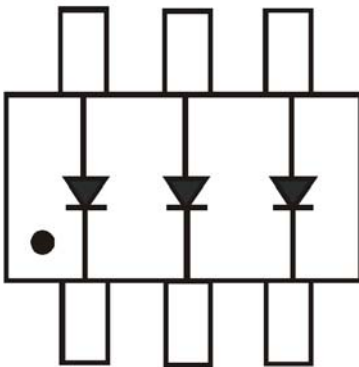
Application

- Fast switching
- Low leakage current
- Low junction capacitance

Mechanical Data

- Package: SOT-363
- Terminals: Tin plated leads, solderable per J-STD-002 and JESD22-B102
- Marking: XJK

■Equivalent circuit





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■ Maximum Ratings (Ta=25°C Unless otherwise specified)

| PARAMETER | SYMBOL | UNIT | Conditions | VALUE |
|--|-----------------|------|----------------------|-----------|
| Repetitive peak reverse voltage | V_{RRM} | V | | 250 |
| Reverse voltage | V_R | V | | 250 |
| Average forward current | I_{FAV} | mA | | 200 |
| Non-repetitive peak forward surge current | I_{FSM} | A | 8.3ms half-sine wave | 1.7 |
| Power dissipation | P_D | mW | | 200 |
| Thermal Resistance Junction to Ambient Air | $R_{\theta JA}$ | °C/W | | 625 |
| Maximum junction temperature | T_j | °C | | -55 ~+150 |
| Storage temperature range | T_{sig} | °C | | -55 ~+150 |

■ Electrical Characteristics (Ta=25°C unless otherwise specified)

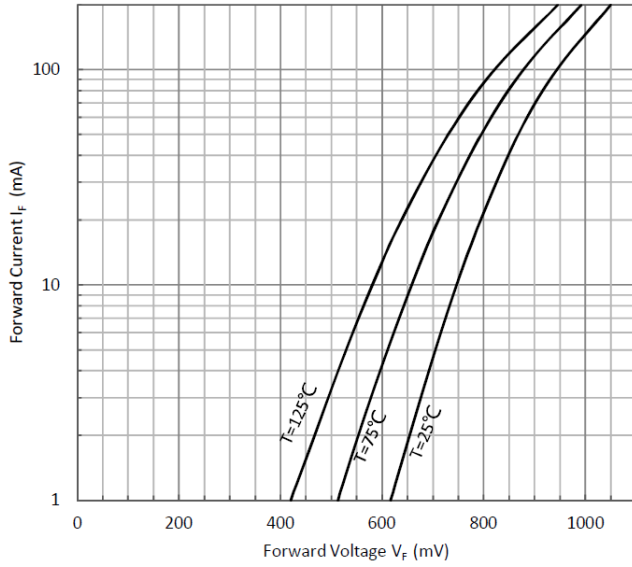
| PARAMETER | Symbol | UNIT | Conditions | Min | Max |
|-------------------------|----------|------|----------------------------|-----|------|
| Breakdown Voltage | V_R | V | $I_R=100\mu A$ | 250 | |
| Forward Voltage | V_F | V | $I_F=100mA$ | | 1.05 |
| | | | $I_F=200mA$ | | 1.25 |
| Reverse Leakage Current | I_R | nA | $V_R=200V$ | | 100 |
| Capacitance | C_j | pF | $V_R=0V, f=1MHz$ | | 5 |
| Reverse Recovery Time | T_{RR} | ns | $I_F=I_R=30mA, I_{rr}=1mA$ | | 50 |



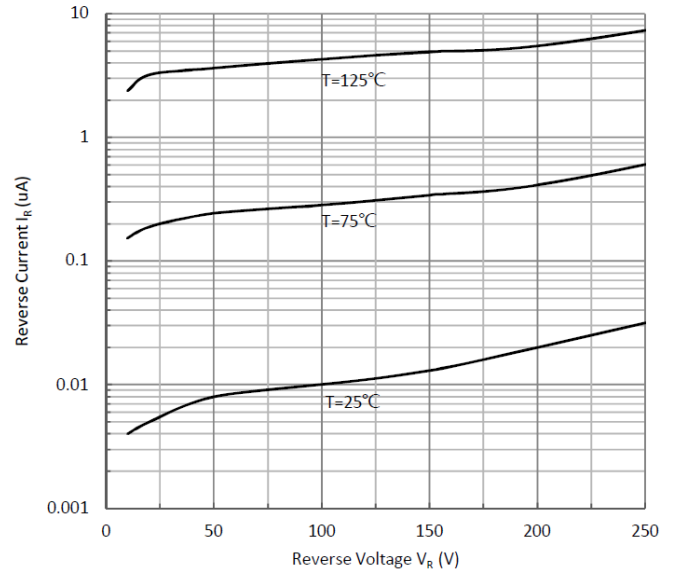
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■ Electrical Characteristics (Typical)

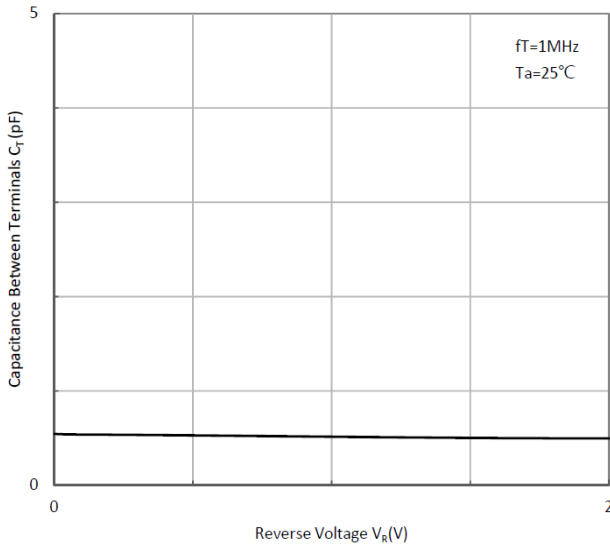
Forward Characteristics



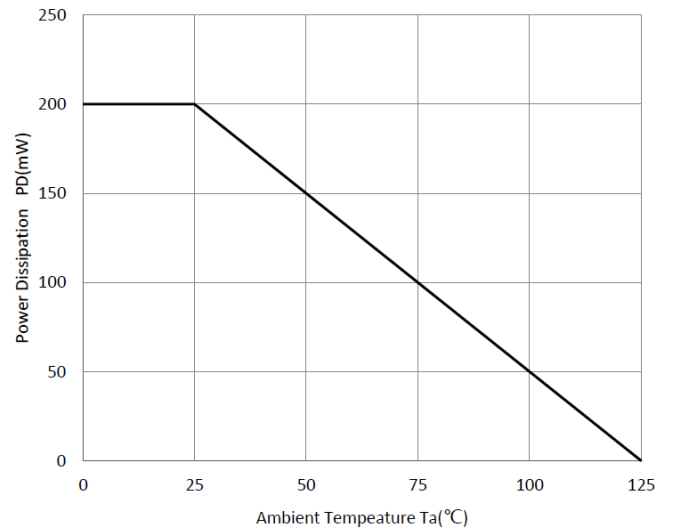
Reverse Characteristics



Capacitance Characteristics



Power Derating Curve



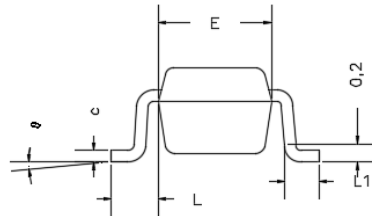
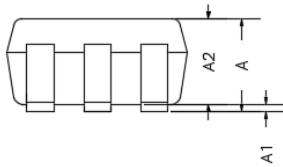
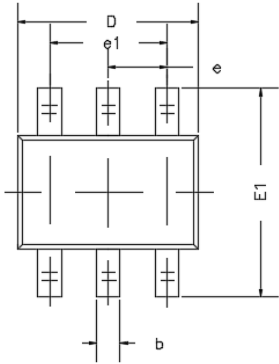


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Ordering Information (Example)

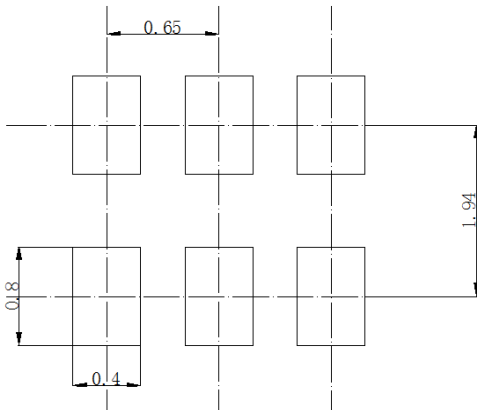
| PREFERRED P/N | PACKING CODE | UNIT WEIGHT(g) | MINIMUM PACKAGE(pcs) | INNER BOX QUANTITY(pcs) | OUTER CARTON QUANTITY(pcs) | DELIVERY MODE |
|---------------|--------------|--------------------|----------------------|-------------------------|----------------------------|---------------|
| BAS21TW | F2 | Approximate 0.009g | 3000 | 30000 | 120000 | 7" reel |

SOT-363 Package Outline Dimensions



| DIM | DIMENSIONS | | | |
|-----|------------|-------|----------|-------|
| | INCHES | | MM | |
| | MIN | MAX | MIN | MAX |
| A | 0.035 | 0.043 | 0.900 | 1.100 |
| A1 | 0.000 | 0.004 | 0.000 | 0.100 |
| A2 | 0.035 | 0.039 | 0.900 | 1.000 |
| b | 0.006 | 0.014 | 0.150 | 0.350 |
| c | 0.002 | 0.010 | 0.050 | 0.250 |
| D | 0.071 | 0.087 | 1.800 | 2.200 |
| E | 0.045 | 0.053 | 1.150 | 1.350 |
| E1 | 0.085 | 0.096 | 2.150 | 2.450 |
| e | 0.026TYP | | 0.65TYP | |
| e1 | 0.047 | 0.055 | 1.200 | 1.400 |
| L | 0.021TYP | | 0.525TYP | |
| L1 | 0.010 | 0.018 | 0.260 | 0.460 |
| θ | 0° | 8° | 0° | 8° |

SOT-363 Soldering Footprint



Unit: mm



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Disclaimer

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