



BAP64-04 BAP64-05 BAP64-06

Features

- Lead Free Finish/RoHS Compliant ("P" Suffix designates RoHS Compliant. See ordering information)
- Epoxy meets UL 94 V-0 flammability rating
- Moisture Sensitivity Level 1
- Low diode capacitance
- Low diode forward resistance

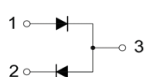
Maximum Ratings @ 25°C Unless Otherwise Specified

| Parameter | Symbol | Limits | Unit |
|---|----------------|----------|------|
| Continuous Reverse Voltage | V_R | 175 | V |
| Forward Current | I_F | 100 | mA |
| Power Dissipation($T_A=90^\circ\text{C}$) | P_D | 250 | mW |
| Junction and Storage temperature | T_j, P_{stg} | -65~+150 | °C |
| Thermal Resistance Junction to Ambient | R_{thJA} | 500 | °C/W |

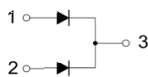
Electrical Characteristics @ 25°C Unless Otherwise Specified

| Parameter | Symbol | Min. | TYP | Max. | Unit | Conditions |
|---------------------------------|----------|------|------|-----------|---------------|---|
| Reverse Voltage Leakage Current | I_R | | | 10 1.0 | μA | $V_R=175\text{V}$ $V_R=20\text{V}$ |
| Forward voltage | V_F | | | 1.1 | V | $I_F=50\text{mA}$ |
| Diode capacitance | C_{d1} | 0.52 | | | pF | $V_R=0\text{V}, f=1\text{MHz}$ |
| | C_{d2} | 0.37 | 0.5 | | pF | $V_R=1\text{V}, f=1\text{MHz}$ |
| | C_{d3} | 0.23 | 0.35 | | pF | $V_R=20\text{V}, f=1\text{MHz}$ |
| Diode forward resistance | r_{D1} | 20 | 40 | | Ω | $I_F=0.5\text{mA}, f=100\text{MHz}$ |
| | r_{D2} | 10 | 20 | | Ω | $I_F=1\text{mA}, f=100\text{MHz}$ |
| | r_{D3} | 2.0 | 3.8 | | Ω | $I_F=10\text{mA}, f=100\text{MHz}$ |
| | r_{D4} | 0.7 | 1.35 | | Ω | $I_F=100\text{mA}, f=100\text{MHz}$ |
| Charge carrier life time | τ_L | 1.55 | | | μS | When switched from $I_F=10\text{mA}$ to $I_R=6\text{mA}$; $R_L=100\Omega$; measured at $I_R=3\text{mA}$ |
| Series inductance | L_S | | 1.4 | | nH | $I_F=100\text{mA}, f=100\text{MHz}$ |

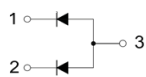
Pin Configuration



BAP64-04
Marking: 4K



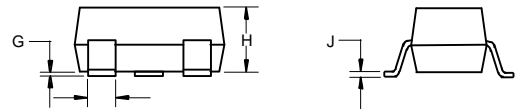
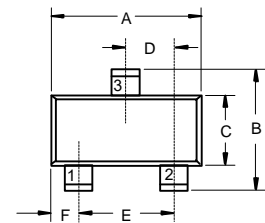
BAP64-05
Marking: 5K



BAP64-06
Marking: 6K

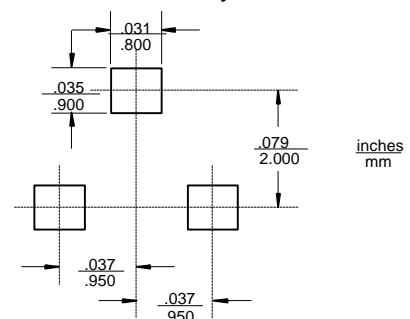
General Purpose Pin Diodes 250mW

SOT-23



| DIM | DIMENSIONS | | | | NOTE |
|-----|------------|-------|------|------|------|
| | INCHES | | MM | | |
| A | MIN | MAX | MIN | MAX | |
| A | .110 | .120 | 2.80 | 3.04 | |
| B | .083 | .104 | 2.10 | 2.64 | |
| C | .047 | .055 | 1.20 | 1.40 | |
| D | .035 | .041 | .89 | 1.03 | |
| E | .070 | .081 | 1.78 | 2.05 | |
| F | .018 | .024 | .45 | .60 | |
| G | .0005 | .0039 | .013 | .100 | |
| H | .035 | .044 | .89 | 1.12 | |
| J | .003 | .007 | .085 | .180 | |
| K | .015 | .020 | .37 | .51 | |

Suggested Solder Pad Layout



Typical Characteristics

Fig. 1 - Instantaneous Forward Characteristics

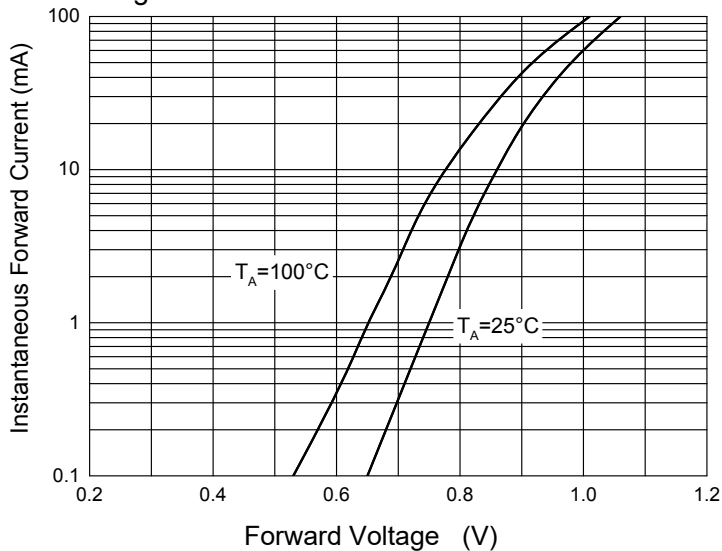


Fig. 2 - Reverse Leakage Characteristics

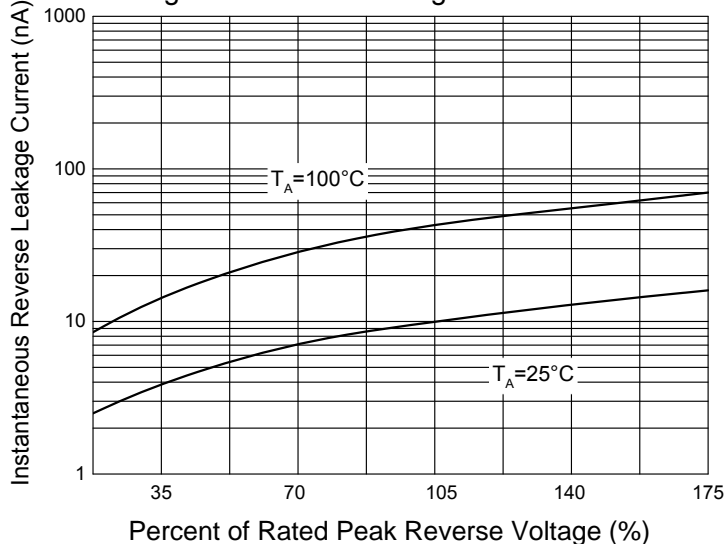
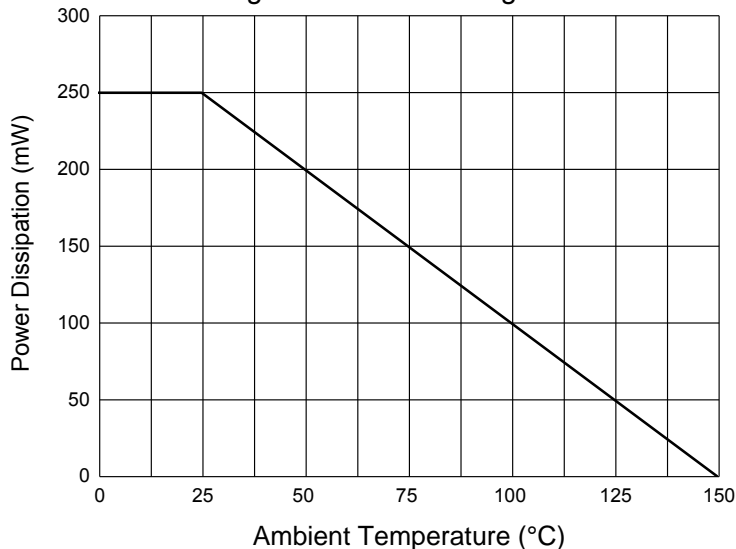


Fig. 3 - Power Derating Curve





Micro Commercial Components

Ordering Information

| | |
|------------------|----------------------|
| Device | Packing |
| (Part Number)-TP | Tape&Reel;3Kpcs/Reel |

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