

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

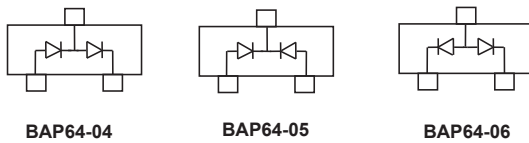
Maximum Ratings

- Operating Junction Temperature Range: -65°C to +150°C
- Storage Temperature Range: -65°C to +150°C
- Thermal Resistance: 500°C/W Junction to Ambient

| 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 |

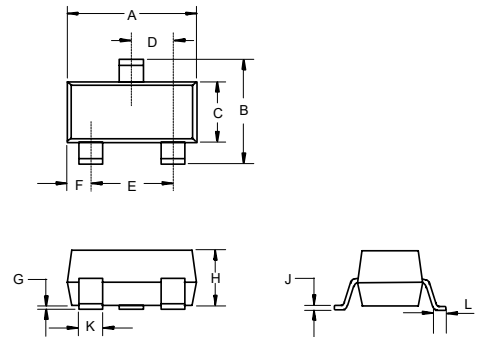
| MCC Part Number | Device Marking |
|-----------------|----------------|
| BAP64-04 | 4K |
| BAP64-05 | 5K |
| BAP64-06 | 6K |

Pin Configuration



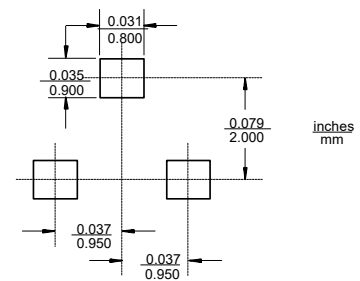
**General Purpose Pin Diodes
250mW**

SOT-23



| DIM | INCHES | | MM | | NOTE |
|-----|--------|-------|------|------|------|
| | MIN | MAX | MIN | MAX | |
| A | 0.110 | 0.120 | 2.80 | 3.04 | |
| B | 0.083 | 0.104 | 2.10 | 2.64 | |
| C | 0.047 | 0.055 | 1.20 | 1.40 | |
| D | 0.034 | 0.041 | 0.85 | 1.05 | |
| E | 0.067 | 0.083 | 1.70 | 2.10 | |
| F | 0.018 | 0.024 | 0.45 | 0.60 | |
| G | 0.0004 | 0.006 | 0.01 | 0.15 | |
| H | 0.035 | 0.043 | 0.90 | 1.10 | |
| J | 0.003 | 0.007 | 0.08 | 0.18 | |
| K | 0.012 | 0.020 | 0.30 | 0.51 | |
| L | 0.007 | 0.020 | 0.20 | 0.50 | |

Suggested Solder Pad Layout



Electrical Characteristics @ 25°C Unless Otherwise Specified

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

Curve Characteristics

Fig. 1 - Forward Characteristics

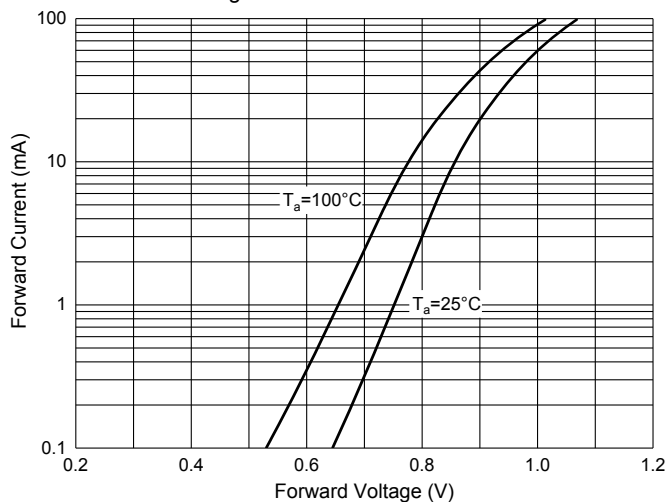


Fig. 2 - Reverse Characteristics

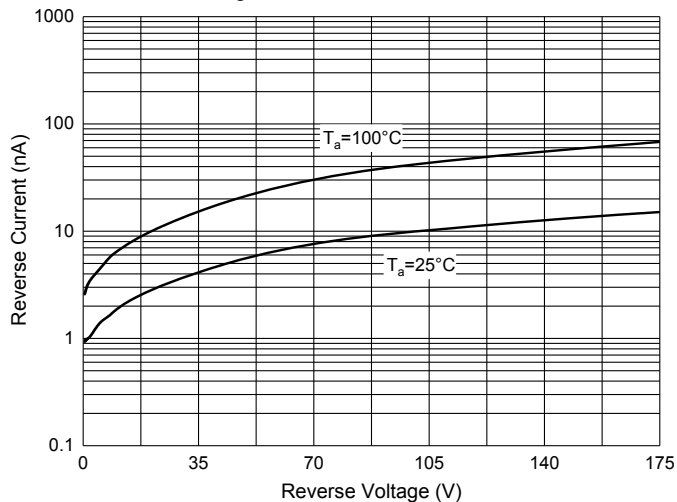


Fig. 3 - Capacitance Characteristics

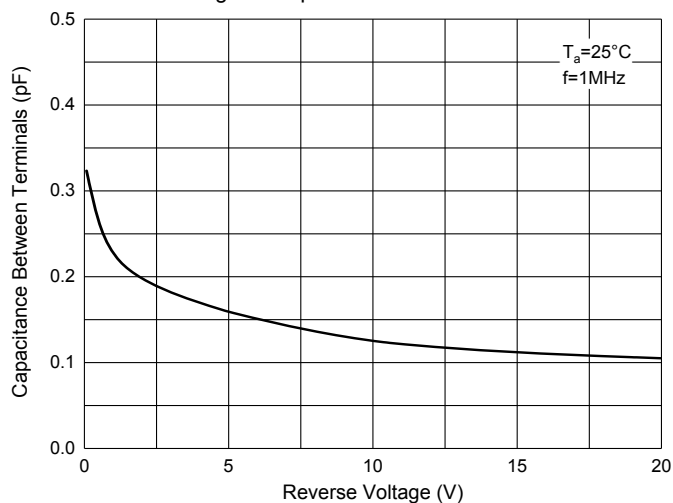
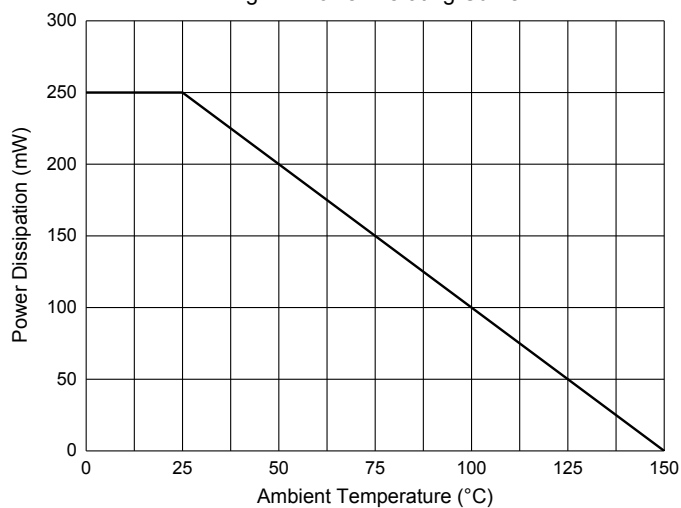


Fig. 4 - Power Derating Curve



Ordering Information

| Device | Packing |
|----------------|-----------------------|
| Part Number-TP | Tape&Reel: 3Kpcs/Reel |

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