

## 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
- Halogen Free. "Green" Device (Note 1)

## Maximum Ratings

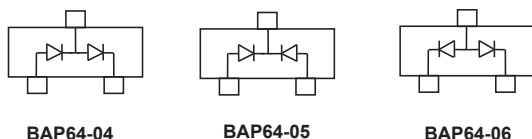
- Operating Junction Temperature Range: -65°C to +150°C
- Storage Temperature Range: -65°C to +150°C
- Thermal Resistance: 500°C/W Junction to Ambient

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

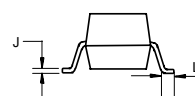
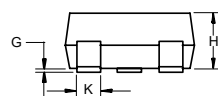
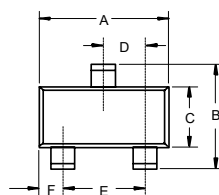
Note: 1. Halogen free "Green" products are defined as those which contain <900ppm bromine, <900ppm chlorine (<1500ppm total Br + Cl) and <1000ppm antimony compounds.

Pin Configuration



# General Purpose Pin Diodes 250mW

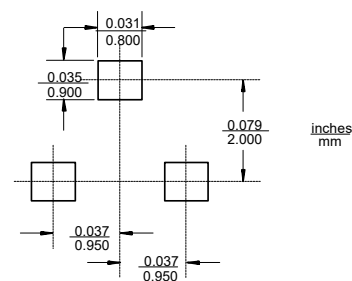
## SOT-23



### DIMENSIONS

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 $\mu$ A 1.0 $\mu$ 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 $\Omega$	40 $\Omega$	$I_F=0.5mA, f=100MHz$
	$R_{D2}$		10 $\Omega$	20 $\Omega$	$I_F=1.0mA, f=100MHz$
	$R_{D3}$		2.0 $\Omega$	3.8 $\Omega$	$I_F=10mA, f=100MHz$
	$R_{D4}$		0.7 $\Omega$	1.35 $\Omega$	$I_F=100mA, f=100MHz$
Charge carrier life time	$T_L$		1.55 $\mu$ 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

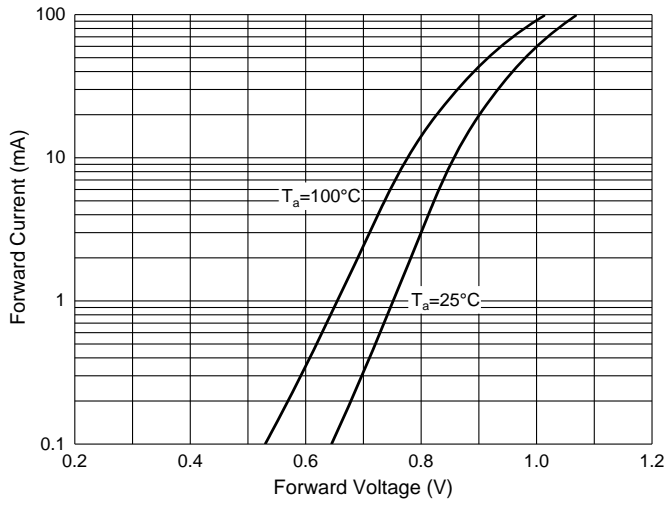


Fig. 2 - Reverse Characteristics

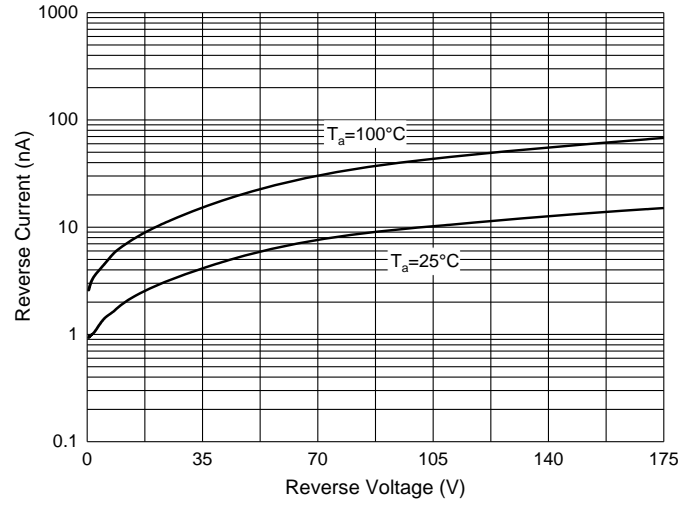


Fig. 3 - Capacitance Characteristics

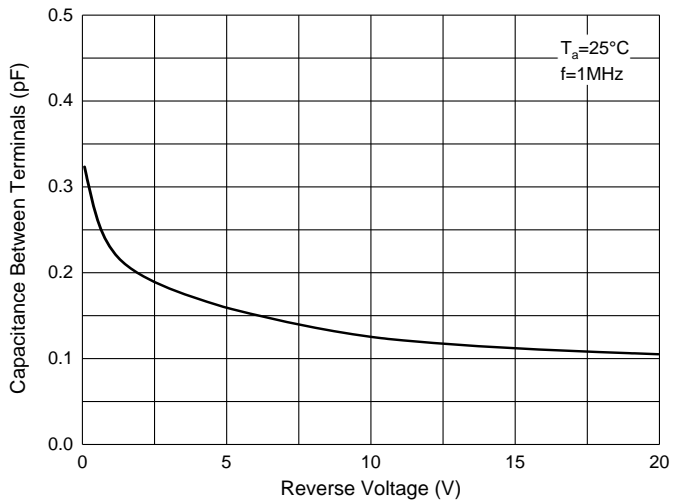


Fig. 4 - Power Derating Curve

