

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

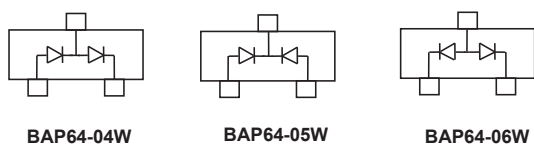
- Operating Junction Temperature Range: -55°C to +150°C
- Storage Temperature Range: -55°C to +150°C
- Thermal Resistance: 625°C/W Junction to Ambient

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	200	mW

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

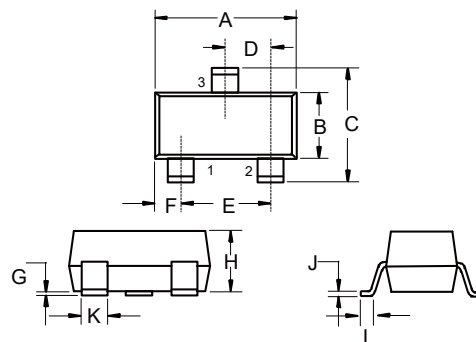
Note: 1. Halogen free "Green" products are defined as those which contain <900ppm bromine, <900ppm chlorine (<1500ppm total Br + Cl) and <1000ppm antimony compounds.

Pin Configuration



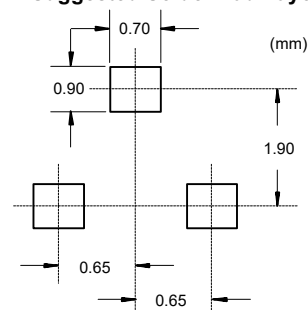
General Purpose Pin Diodes 200mW

SOT-323



DIM	INCHES		MM		NOTE
	MIN	MAX	MIN	MAX	
A	0.071	0.087	1.80	2.20	
B	0.045	0.053	1.15	1.35	
C	0.083	0.096	2.10	2.45	
D	0.026		0.65		TYP.
E	0.047	0.055	1.20	1.40	
F	0.012	0.016	0.30	0.40	
G	0.000	0.004	0.00	0.10	
H	0.035	0.044	0.90	1.10	
J	0.002	0.010	0.05	0.25	
K	0.006	0.016	0.15	0.40	
L	0.010	0.018	0.26	0.46	

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 BAP64-04W/06W BAP64-05W	L_S		1.6nH 1.4nH		$I_F=100mA, f=100MHz$

Curve Characteristics

Fig. 1 - Forward Characteristics

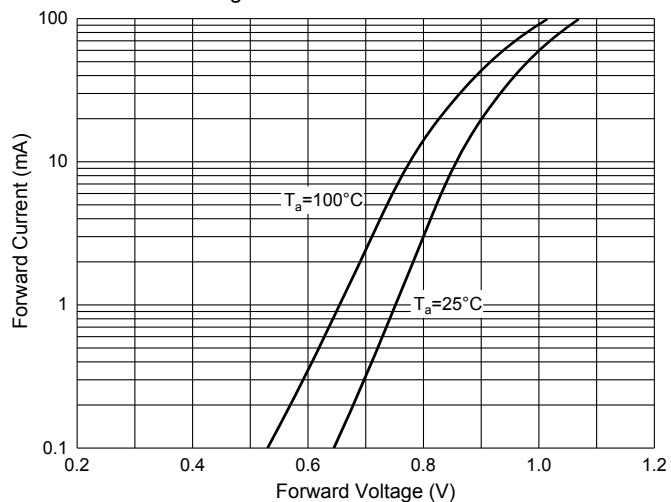


Fig. 2 - Reverse Characteristics

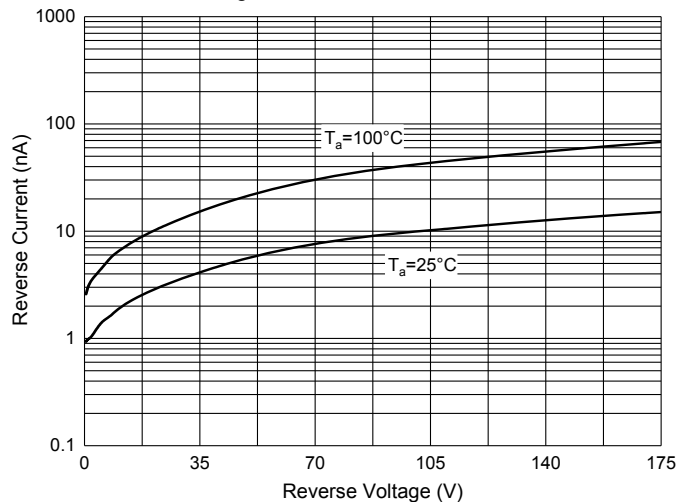


Fig. 3 - Capacitance Characteristics

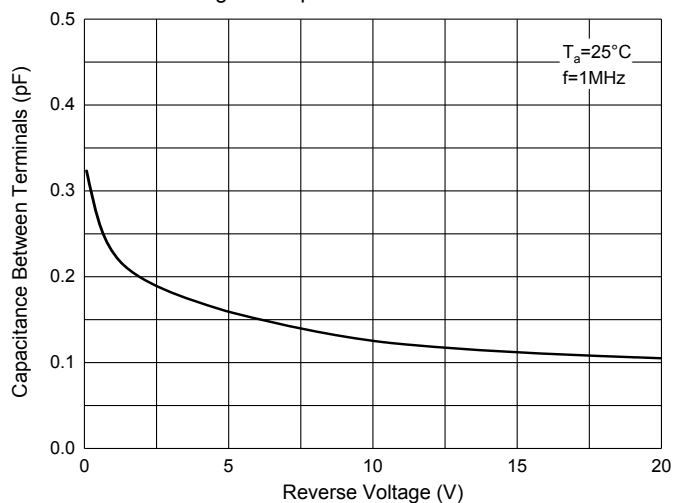


Fig. 4 - Power Derating Curve

