



**THE DATASHEET OF
BAP64-05W-TP**



BAP64-04W
BAP64-05W
BAP64-06W

General Purpose Pin Diodes
200mW

Features

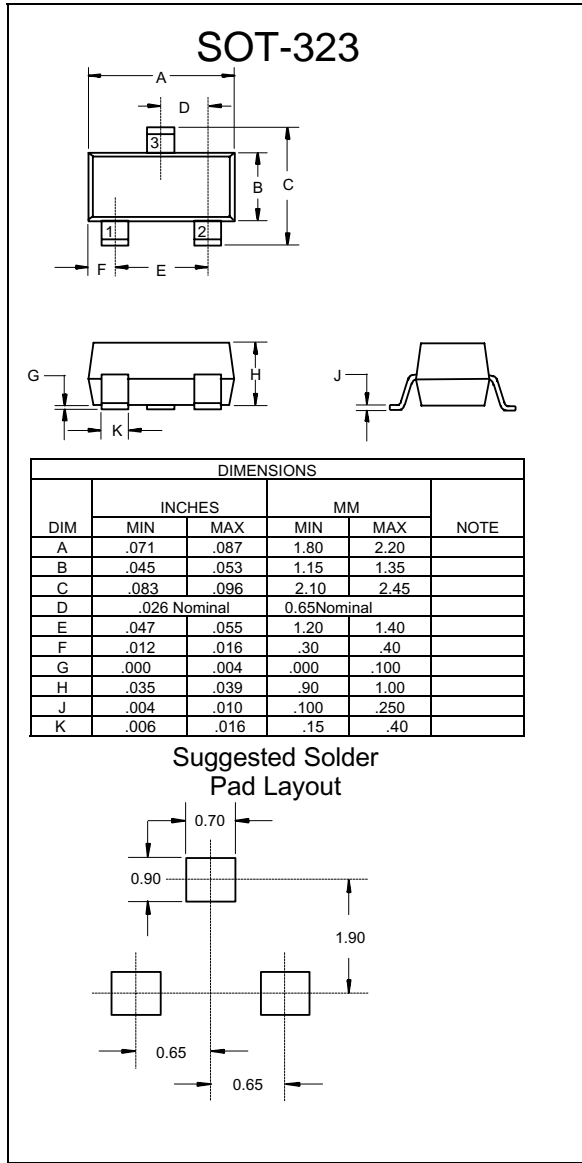
- Lead Free Finish/RoHS Compliant ("P" Suffix designates RoHS Compliant. See ordering information)
- Epoxy meets UL 94 V-0 flammability rating
- Moisture Sensitivity Level 1
- Low diode capacitance
- Low diode forward resistance

Maximum Ratings @ 25°C Unless Otherwise Specified

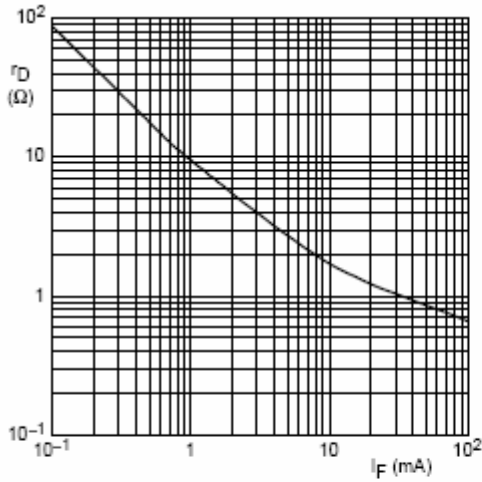
Parameter	Symbol	Limits	Unit
Continuous Reverse Voltage	V_R	175	V
Forward Current	I_F	100	mA
Power Dissipation ($T_A=90^\circ\text{C}$)	P_D	200	mW
Junction and Storage temperature	T_j, P_{stg}	-55~+150	°C
Thermal Resistance Junction to Ambient	R_{thJA}	625	°C/W

Electrical Characteristics @ 25°C Unless Otherwise Specified

Parameter	Symbol	Min.	TYP	Max.	Unit	Conditions
Reverse Voltage Leakage Current	I_R			10	uA	$V_R=175\text{V}$
				1.0		$V_R=20\text{V}$
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_D		20	40	Ω	$I_F=0.5\text{mA}, f=100\text{MHz}$
	r_D		10	20	Ω	$I_F=1\text{mA}, f=100\text{MHz}$
	r_D		2	3.8	Ω	$I_F=10\text{mA}, f=100\text{MHz}$
	r_D		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 $I_F=6\text{mA}$; $R_L=100\Omega$; measured at $I_R=3\text{mA}$
Series inductance	L_s		1.6		nH	$I_F=100\text{mA}, f=100\text{MHz}$
BAP64-04W/06W BAP64-05W			1.4		nH	$I_F=100\text{mA}, f=100\text{MHz}$

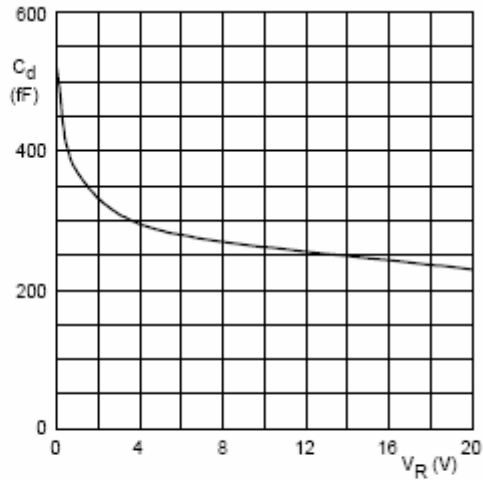


Typical Characteristics



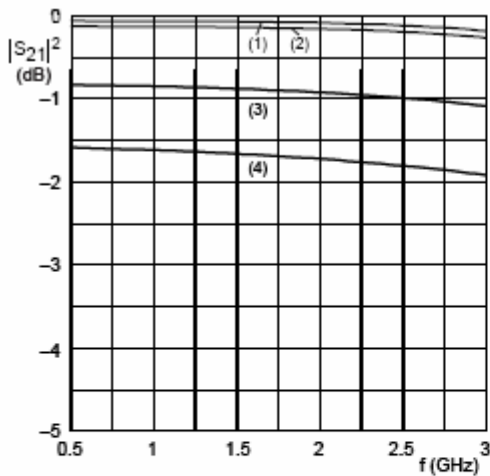
$f = 100 \text{ MHz}; T_j = 25 \text{ }^\circ\text{C}.$

Forward resistance as a function of forward current; typical values.



$f = 1 \text{ MHz}; T_j = 25 \text{ }^\circ\text{C}.$

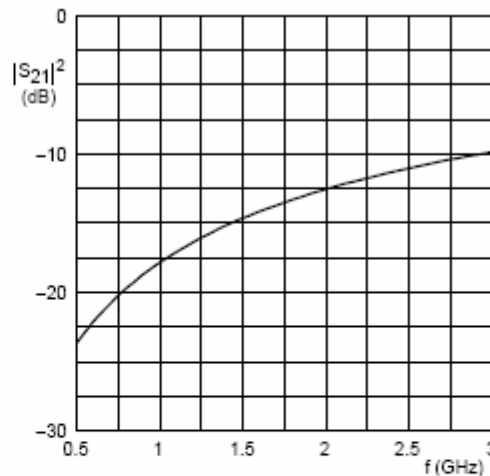
Diode capacitance as a function of reverse voltage; typical values.



(1) $I_F = 100 \text{ mA}.$ (3) $I_F = 1 \text{ mA}.$
(2) $I_F = 10 \text{ mA}.$ (4) $I_F = 0.5 \text{ mA}.$

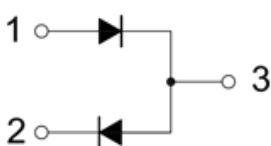
Diode inserted in series with a $50 \text{ } \Omega$ stripline circuit and biased via the analyzer Tee network.
 $T_{\text{amb}} = 25 \text{ }^\circ\text{C}.$

Insertion loss ($|S_{21}|^2$) of the diode as a function of frequency; typical values.

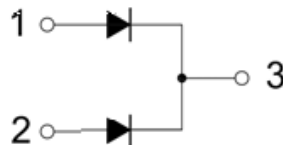


Diode zero biased and inserted in series with a $50 \text{ } \Omega$ stripline circuit.
 $T_{\text{amb}} = 25 \text{ }^\circ\text{C}.$

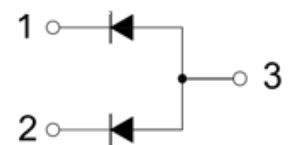
Isolation ($|S_{21}|^2$) of the diode as a function of frequency; typical values.



BAP64-04W
MARKING:4W



BAP64-05W
MARKING:5W



BAP64-06W
MARKING:6W



Micro Commercial Components

Ordering Information

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

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