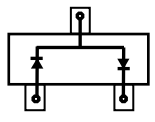
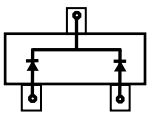
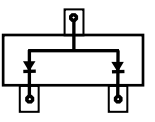


RoHS Compliant Product
A suffix of "-C" specifies halogen & lead-free

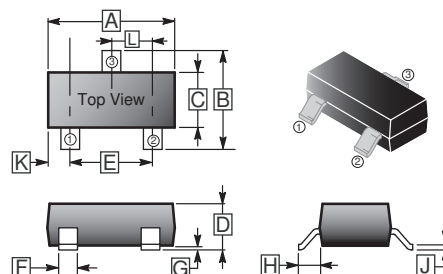
FEATURES

- Low diode capacitance
- Low series inductance
- High voltage, current controlled
- RF resistor for RF attenuators and switches
- RF attenuators and switches

MARKING CODE

Part Name	BAP64-04WS	BAP64-05WS	BAP64-06WS
Marking	4W	5W	6W
Circuit			

SOT-323



REF.	Millimeter		REF.	Millimeter	
	Min.	Max.		Min.	Max.
A	1.80	2.20	G	0.100 REF.	
B	1.80	2.45	H	0.525 REF.	
C	1.15	1.35	J	0.08	0.25
D	0.80	1.10	K	-	-
E	1.20	1.40	L	0.650 TYP.	
F	0.20	0.40			

PACKAGE INFORMATION

Package	MPQ	Leader Size
SOT-323	3K	7 inch

MAXIMUM RATINGS (at Ta = 25°C unless otherwise specified)

Parameter	Symbol	Ratings	Unit
Continuous Reverse Voltage	V_R	175	V
Continuous Forward Current	I_F	100	mA
Power Dissipation	P_D	200	mW
Thermal Resistance Junction to Ambient	$R_{\theta JA}$	625	°C / W
Junction, Storage Temperature	T_J, T_{STG}	150, -55 ~ +150	°C

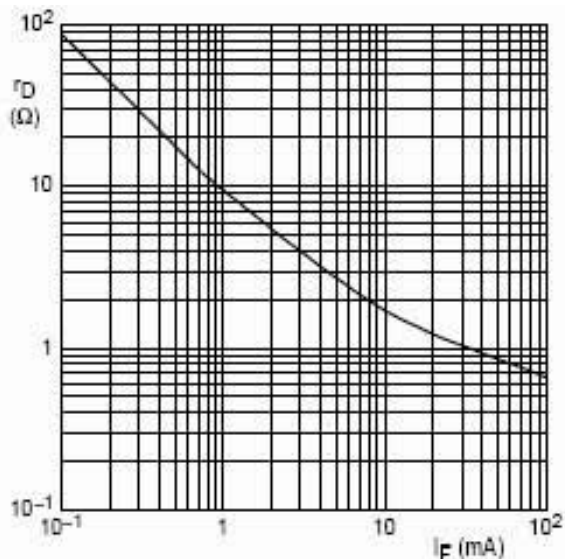
ELECTRICAL CHARACTERISTICS (at Ta = 25°C unless otherwise specified)

Parameters	Symbol	Min.	Typ.	Max.	Unit	Test Conditions	
Forward Voltage	V_F	-	-	1.1	V	$I_F = 50\text{mA}$	
Reverse Voltage Leakage Current	I_R	-	-	10	μA	$V_R = 175\text{V}$	
		-	-	1		$V_R = 20\text{V}$	
Diode Capacitance	C_D	-	0.52	-	pF	$V_R = 0, f = 1\text{MHz}$	
		-	-	0.5		$V_R = 1\text{V}, f = 1\text{MHz}$	
		-	-	0.35		$V_R = 20\text{V}, f = 1\text{MHz}$	
Diode Forward Resistance ¹	r_D	-	-	40	Ω	$I_F = 0.5\text{mA}, f = 100\text{MHz}$	
		-	-	20		$I_F = 1\text{mA}, f = 100\text{MHz}$	
		-	-	3.8		$I_F = 10\text{mA}, f = 100\text{MHz}$	
		-	-	1.35		$I_F = 100\text{mA}, f = 100\text{MHz}$	
Charge Carrier Life Time	t_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	BAP64-04WS	L_S	-	1.6	-	nH	$I_F = 10\text{mA}, f = 100\text{MHz}$
	BAP64-06WS		-	1.4	-		
	BAP64-05WS		-	1.4	-		

Note:

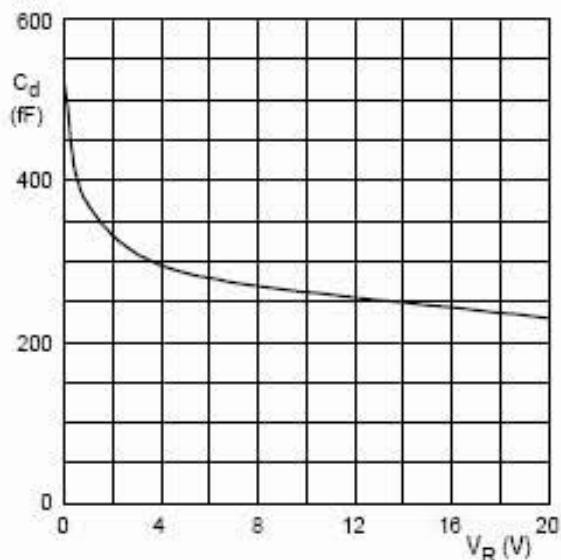
1. Guaranteed on AQL basis: inspection level S4, AQL 1.0.

RATINGS AND CHARACTERISTIC CURVES



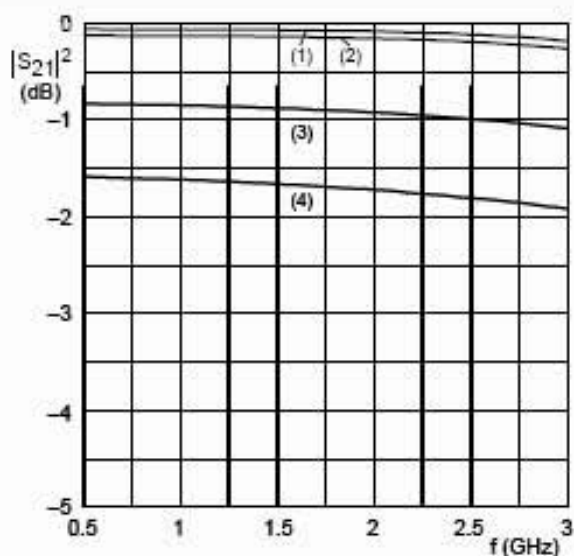
$f = 100 \text{ MHz}; T_j = 25 \text{ }^\circ\text{C}.$

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



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

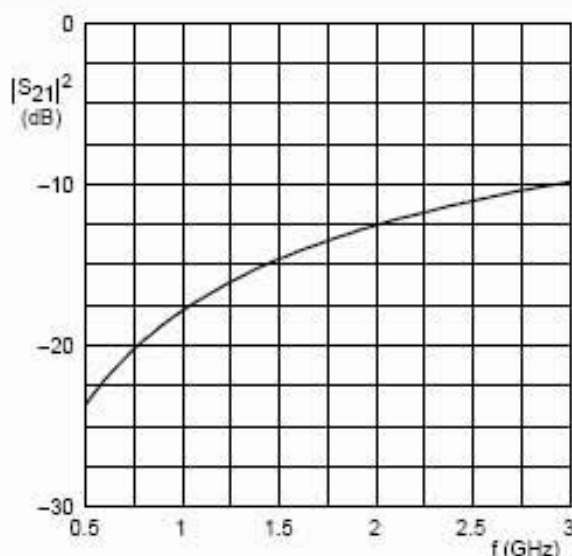
Diode capacitance as a function of reverse voltage; typical values.



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