



## SOT-323 Plastic-Encapsulate Diodes

### BAP64-04W,05W,06W Pin Diode

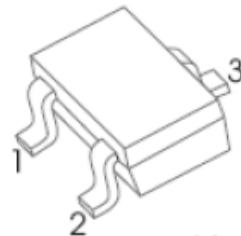
#### FEATURE

- High voltage ,current controlled
- RF resistor for RF attenuators and switches
- Low diode capacitance
- Low diode forward resistance
- Low series inductance
- For applications up to 3 GHz

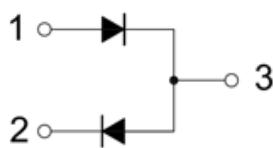
#### APPLICATION

- RF attenuators and switches

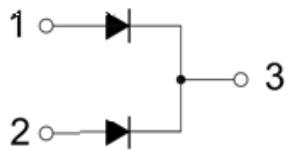
SOT-323



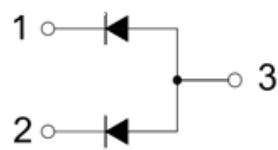
BAP64-04W



BAP64-05W



BAP64-06W



MARKING:4W

MARKING:5W

MARKING:6W

Maximum Ratings ( $T_a=25^\circ\text{C}$  unless otherwise specified)

Parameter	Symbol	Value	Unit
Continuous reverse voltage	$V_R$	175	V
Continuous forward current	$I_F$	100	mA
Power dissipation	$P_D$	200	mW
Thermal resistance from junction to ambient	$R_{\theta JA}$	625	°C/W
Junction temperature	$T_j$	150	°C
Storage temperature	$T_{stg}$	-55~+150	°C

**Electrical characteristic ( $T_a=25^\circ\text{C}$  unless otherwise specified )**

Parameter	Symbol	Conditions	Min	Typ	Max	Unit
<b>Forward Voltage</b>	<b><math>V_F</math></b>	$I_F=50\text{mA}$			1.1	$\text{V}$
<b>Reverse Current</b>	$I_{R1}$	$V_{R1}=175\text{V}$			10	$\mu\text{A}$
	$I_{R2}$	$V_{R2}=20\text{V}$			1	
<b>Diode Capacitance</b>	$C_{d1}$	$V_R=0\text{V}, f=1\text{MHz}$		0.52		$\text{pF}$
	$C_{d2}$	$V_R=1\text{V}, f=1\text{MHz}$			0.5	
	$C_{d3}$	$V_R=20\text{V}, f=1\text{MHz}$			0.35	
<b>Diode Forward Resistance (note 1)</b>	$r_{d1}$	$I_F=0.5\text{mA}, f=100\text{MHz}$			40	$\Omega$
	$r_{d2}$	$I_F=1\text{mA}, f=100\text{MHz}$			20	
	$r_{d3}$	$I_F=10\text{mA}, f=100\text{MHz}$			3.8	
	$r_{d4}$	$I_F=100\text{mA}, f=100\text{MHz}$			1.35	
<b>Charge Carrier Life Time</b>	$\tau_L$	When switched from $I_F = 10\text{mA}$ to $I_R = 6\text{mA}$ ; $R_L = 100\Omega$ ; measured at $I_R = 3\text{mA}$		1.55		$\mu\text{s}$
<b>Series Inductance</b>	$L_s$	$I_F=10\text{mA}, f=100\text{MHz}$ BAP64-04W/06W		1.6		$\text{nH}$
				1.4		

Note:

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