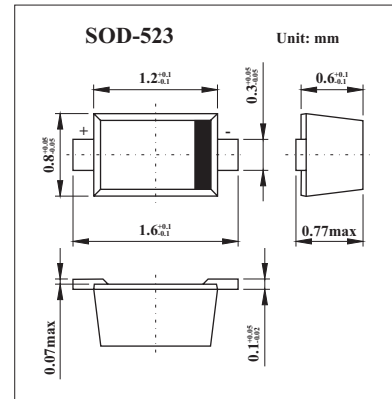


# BAP63-02

## ■ Features

- High speed switching for RF signals
- Low diode capacitance
- Low diode forward resistance
- Very low series inductance.
- For applications up to 3 GHz.



## ■ Absolute Maximum Ratings Ta = 25°C

Parameter	Symbol	Min	Max	Unit
continuous reverse voltage	V <sub>R</sub>		50	V
continuous forward current	I <sub>F</sub>		100	mA
total power dissipation T <sub>s</sub> ≤ 90 °C	P <sub>tot</sub>		715	mW
storage temperature	T <sub>stg</sub>	-65	+150	°C
junction temperature	T <sub>j</sub>	-65	+150	°C
thermal resistance from junction to soldering point	R <sub>th j-s</sub>		85	K/W

## BAP63-02

### ■ Electrical Characteristics Ta = 25 °C

Parameter	Symbol	Conditions	Typ	Max	Unit
forward voltage	V <sub>F</sub>	I <sub>F</sub> = 50 mA	0.95	1.1	V
reverse leakage current	I <sub>R</sub>	V <sub>R</sub> = 35 V		10	nA
diode capacitance	C <sub>d</sub>	V <sub>R</sub> = 0; f = 1 MHz	0.36		pF
		V <sub>R</sub> = 1 V; f = 1 MHz	0.32		
		V <sub>R</sub> = 20V; f = 1 MHz	0.25	0.32	
diode forward resistance	r <sub>D</sub>	I <sub>F</sub> = 0.5 mA; f = 100 MHz; note 1	2.5	3.5	Ω
		I <sub>F</sub> = 1 mA; f = 100 MHz; note 1	1.95	3	
		I <sub>F</sub> = 10 mA; f = 100 MHz; note 1	1.17	1.8	
		I <sub>F</sub> = 100 mA; f = 100 MHz; note 1	0.9	1.5	
isolation	s <sub>21</sub>   <sup>2</sup>	V <sub>R</sub> = 0; f = 900 MHz	15.6		dB
		V <sub>R</sub> = 0; f = 1800 MHz	10.3		
		V <sub>R</sub> = 0; f = 2450 MHz	8.3		
insertion loss	s <sub>21</sub>   <sup>2</sup>	V <sub>R</sub> = 0.5; f = 900 MHz	0.19		dB
		V <sub>R</sub> = 0.5; f = 1800 MHz	0.24		
		V <sub>R</sub> = 0.5; f = 2450 MHz	0.28		
insertion loss	s <sub>21</sub>   <sup>2</sup>	V <sub>R</sub> = 1; f = 900 MHz	0.16		dB
		V <sub>R</sub> = 1; f = 1800 MHz	0.20		
		V <sub>R</sub> = 1; f = 2450 MHz	0.25		
insertion loss	s <sub>21</sub>   <sup>2</sup>	V <sub>R</sub> = 10; f = 900 MHz	0.10		dB
		V <sub>R</sub> = 10; f = 1800 MHz	0.16		
		V <sub>R</sub> = 10; f = 2450 MHz	0.20		
insertion loss	s <sub>21</sub>   <sup>2</sup>	V <sub>R</sub> = 100; f = 900 MHz	0.09		dB
		V <sub>R</sub> = 100; f = 1800 MHz	0.14		
		V <sub>R</sub> = 100; f = 2450 MHz	0.18		
charge carrier life time	τ <sub>L</sub>	when switched from I <sub>F</sub> = 10 mA to I <sub>R</sub> = 6 mA; R <sub>L</sub> = 100 Ω ;measured at I <sub>R</sub> = 3 mA	310		μ s
series inductance	L <sub>s</sub>	I <sub>F</sub> = 100 mA; f = 100 MHz	0.6		nH

Note

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

### ■ Marking

Marking	K5
---------	----