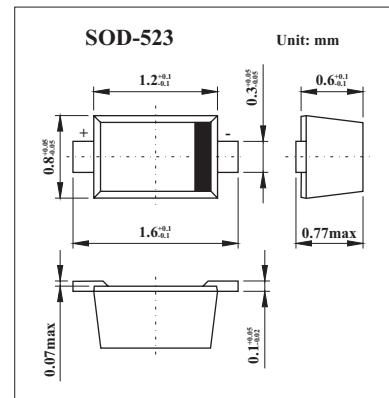


## Silicon PIN Diode

### BAR64-02W

#### ■ Features

- High voltage current controlled RF resistor for RF attenuator and switches
- Frequency range above 1 MHz
- Low resistance and short carrier lifetime
- Very low inductance
- For frequencies up to 3 GHz
- Extremely small plastic SMD package



#### ■ Absolute Maximum Ratings Ta = 25°C

Parameter	Symbol	Value	Unit
Diode reverse voltage	V <sub>R</sub>	200	V
Forward current	I <sub>F</sub>	100	mA
Total power dissipation, Ts ≤ 125°C	P <sub>tot</sub>	250	mW
Junction temperature	T <sub>j</sub>	150	°C
Operating temperature range	T <sub>op</sub>	-55 to +150	°C
Storage temperature	T <sub>stg</sub>	-55 to +150	°C
Junction - ambient (Note 1)	R <sub>thJA</sub>	≤ 220	K/W
Junction - soldering point	R <sub>thJS</sub>	≤ 140	

#### Note

1. Package mounted on alumina 15mm × 16.7mm × 0.7mm

#### ■ Electrical Characteristics Ta = 25°C

Parameter	Symbol	Test Condition	Min	Typ	Max	Unit
Breakdown voltage	V <sub>R</sub>	I <sub>(BR)</sub> = 5 μA	200			V
Forward voltage	V <sub>F</sub>	I <sub>F</sub> = 50 mA			1.1	mV
Diode capacitance	C <sub>T</sub>	V <sub>R</sub> = 20 V, f = 1 MHz		0.23	0.35	pF
Case capacitance	C <sub>c</sub>	f = 1 MHz		0.09		
Forward resistance	r <sub>f</sub>	I <sub>F</sub> = 1 mA, f = 100 MHz		12.5	20	Ω
		I <sub>F</sub> = 10 mA, f = 100 MHz		2.1	3.8	
		I <sub>F</sub> = 100 mA, f = 100 MHz		0.85	1.35	
Charge carrier life time	t <sub>rr</sub>	I <sub>F</sub> = 10 mA, I <sub>R</sub> = 6 mA, I <sub>R</sub> = 3 mA		1.55		μs
Series inductance	L <sub>s</sub>			0.6		nH

#### ■ Marking

Marking	M
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