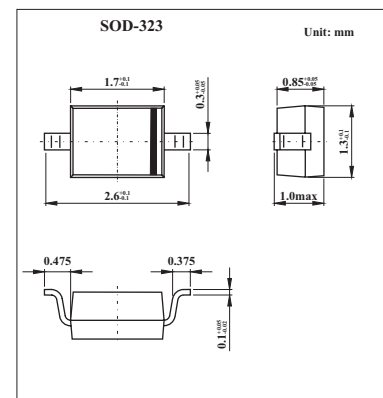


## Silicon PIN Diode

### BAR64-03W

#### ■ Features

- High voltage current controlled RF resistor for RF attenuator and switches
- Frequency range above 1 MHz
- Low resistance and short carrier lifetime
- For frequencies up to 3 GHz



#### ■ Absolute Maximum Ratings $T_a = 25^\circ\text{C}$

Parameter	Symbol	Value	Unit
Reverse voltage	$V_R$	200	V
Forward current	$I_F$	100	mA
Total Power dissipation $T_s \leq 25^\circ\text{C}$	$P_{tot}$	250	mW
Junction temperature	$T_j$	150	$^\circ\text{C}$
Operating temperature range	$T_{op}$	-55 to +150	$^\circ\text{C}$
Storage temperature range	$T_{stg}$	-55 to +150	$^\circ\text{C}$
Junction - soldering point <sup>1)</sup>	$R_{thJA}$	$\leq 450$	K/W

Note:

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

#### ■ Electrical Characteristics $T_a = 25^\circ\text{C}$

Parameter	Symbol	Conditions	Min	Typ	Max	Unit
Breakdown voltage	$V_{(BR)}$	$I_R = 5 \mu\text{A}$	200			V
Forward voltage	$V_F$	$V_R = 20\text{V}, f = 1\text{MHz}$			1.1	V
Diode capacitance	$C_T$	$V_R = 0\text{V}, f = 100\text{MHz}$		0.23	0.35	pF
Forward resistance	$r_f$	$I_F = 1\text{mA}, f = 100\text{MHz}$		12.5	20	$\Omega$
		$I_F = 10\text{mA}, f = 100\text{MHz}$		2.1	3.8	
		$I_F = 100\text{mA}, f = 100\text{MHz}$		0.85	1.35	
Charge carrier life time	$\tau_{rr}$	$I_F = 10\text{mA}, I_R = 6\text{mA}, I_R = 3\text{mA}$		1.55		$\mu\text{s}$
Series inductance	$L_s$			2		nH

#### ■ Marking

Marking	2
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