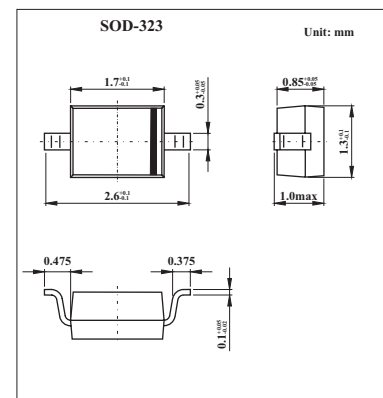


Silicon PIN Diode

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 ¹⁾	R_{thJA}	≤ 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	Ω
		$I_F = 10\text{mA}, f = 100\text{MHz}$		2.1	3.8	
		$I_F = 100\text{mA}, f = 100\text{MHz}$		0.85	1.35	
Charge carrier life time	τ_{rr}	$I_F = 10\text{mA}, I_R = 6\text{mA}, I_R = 3\text{mA}$		1.55		μs
Series inductance	L_s			2		nH

■ Marking

Marking	2
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