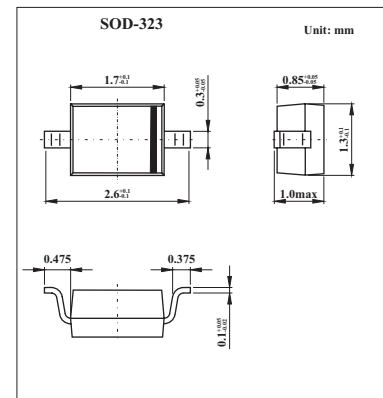


Silicon PIN Diode

BAR 63-03W

■ Features

- PIN diode for high speed switching of RF signals
- Low forward resistance
- Very low capacitance
- For frequencies up to 3 GHz

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

Parameter	Symbol	Value	Unit
Reverse voltage	V_R	50	V
Forward current	I_F	100	mA
Total Power dissipation $T_s \leq 111^\circ\text{C}$	P_{tot}	250	mW
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}	≤ 235	K/W
Junction-soldering point	R_{thJS}	≤ 155	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	$V_{(BR)}$	$I_R = 5 \mu\text{A}$	50			V
Reverse current	I_R	$V_R = 50\text{V}$			50	nA
Forward voltage	V_F	$I_F = 100\text{mA}$		0.95	1.2	V
Diode capacitance	C_T	$V_R = 0\text{V}, f = 100\text{MHz}$		0.3		pF
		$V_R = 5\text{V}, f = 1\text{MHz}$		0.21	0.3	
Forward resistance	r_f	$I_F = 5\text{mA}, f = 100\text{MHz}$		1.2	2	Ω
		$I_F = 10\text{mA}, f = 100\text{MHz}$		1		
Charge carrier life time	τ_{rr}	$I_F = 10\text{mA}, I_R = 6\text{mA}, I_R = 3\text{mA}$		75		ns
Series inductance	L_s			2		nH

■ Marking

Marking	G
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