

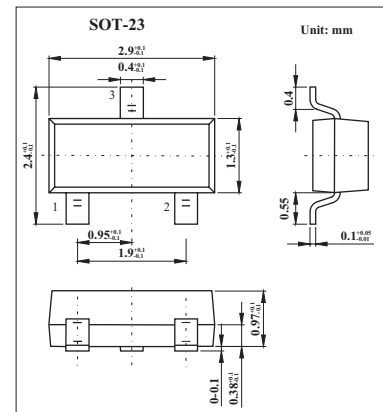
Silicon PIN Diode

BAR64;BAR64-04

BAR64-05;BAR64-06

■ 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			
BAR64 $T_s \leq 90^\circ\text{C}$	P_{tot}	250	mW
BAR 63-04,-05,-06 $T_s \leq 65^\circ\text{C}$		250	
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 - ambient ¹⁾			
BAR64	R_{thJA}	≤ 320	K/W
BAR 64-04,-05,-06		≤ 500	
Junction - soldering point			
BAR64	R_{thJS}	≤ 240	K/W
BAR64-04,-05,-06		≤ 340	

Note

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

BAR64;BAR64-04 BAR64-05;BAR64-06

■ Electrical Characteristics Ta = 25°C

Parameter	Symbol	Test Condition	Min	Typ	Max	Unit
Breakdown voltage	V _(BR)	I _R = 5 μA	200			V
Forward voltage	V _F	I _F = 50 mA			1.1	V
Diode capacitance	C _T	V _R = 20 V, f = 1 MHz		0.23	0.35	pF
Forward resistance	r _f	I _F = 1 mA, f = 100 MHz		12.5	20	Ω
		I _F = 10 mA, f = 100 MHz		2.1	3.8	
		I _F = 100 mA, f = 100 MHz		0.85	1.35	
Charge carrier life time	τ _S	I _F = 10 mA, I _R = 6 mA, I _R = 3 mA		1.55		μs
Series inductance	L _S			1.4		nH

■ Marking

Type	BAR64	BAR64-04	BAR64-05	BAR64-06
Marking	Pos	PPs	PRs	PSs