

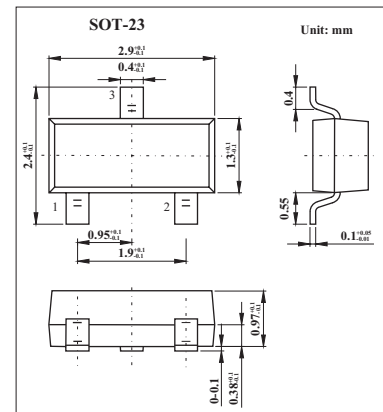
## Silicon PIN Diode

### 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 <sup>1)</sup>			
BAR64	$R_{thJA}$	$\leq 320$	K/W
BAR 64-04,-05,-06		$\leq 500$	
Junction - soldering point			
BAR64	$R_{thJS}$	$\leq 240$	K/W
BAR64-04,-05,-06		$\leq 340$	

Note

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

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

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

Parameter	Symbol	Test Condition	Min	Typ	Max	Unit
Breakdown voltage	$V_{(BR)}$	$I_R = 5 \mu\text{A}$	200			V
Forward voltage	$V_F$	$I_F = 50 \text{mA}$			1.1	V
Diode capacitance	$C_T$	$V_R = 20 \text{V}, f = 1 \text{MHz}$		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	$\tau_S$	$I_F = 10 \text{mA}, I_R = 6 \text{mA}, I_R = 3 \text{mA}$		1.55		$\mu\text{s}$
Series inductance	$L_S$			1.4		nH

### ■ Marking

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