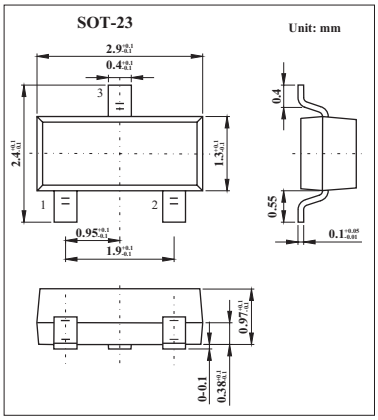
Silicon PIN Diode

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



Features

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

Absolute Maximum Ratings Ta = 25℃

Parameter	Symbol	Value	Unit
Reverse voltage	V_R	200	V
Forward current	I_F	100	mA
Total power dissipation BAR64 Ts ≤ 90℃ BAR 63-04,-05,-06 Ts ≤ 65℃	P_{tot}	 250 250	mW
Junction temperature	T_j	150	℃
Operating temperature range	T_{op}	-55 to +150	℃
Storage temperature range	T_{stg}	-55 to +150	℃
Junction - ambient [1)] BAR64 BAR 64-04,-05,-06	R_{thJA}	 ≤ 320 ≤ 500	K/W
Junction - soldering point BAR64 BAR64-04,-05,-06	R_{thJS}	 ≤ 240 ≤ 340	K/W

Note

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

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■ Electrical Characteristics Ta = 25℃

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