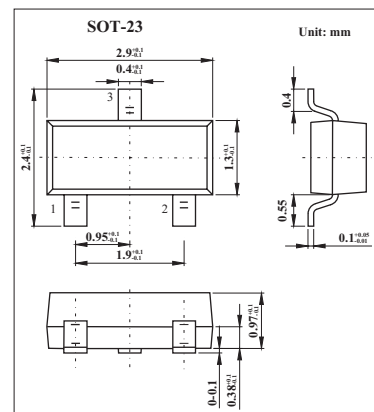


Silicon PIN Diode

BAR 63;BAR63-04 BAR 63-05;BAR63-06

■ 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 BAR63 $T_s \leq 80^\circ\text{C}$ BAR 63-04,-05,-06 $T_s \leq 55^\circ\text{C}$	P_{tot}	250 250	mW
Operating temperature range	T_{op}	-55 to +150	$^\circ\text{C}$
Storage temperature range	T_{stg}	-55 to +150	$^\circ\text{C}$
Junction - ambient ¹⁾ BAR63 BAR 63-04,-05,-06	R_{thJA}	≤ 450 ≤ 540	K/W
Junction - soldering point BAR63 BAR63-04,-05,-06	R_{thJS}	≤ 280 ≤ 380	K/W

Note

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

BAR 63;BAR63-04 BAR 63-05;BAR63-06

■ Electrical Characteristics Ta = 25℃

Parameter	Symbol	Test Condition	Min	Typ	Max	Unit
Breakdown voltage	$V_{(BR)}$	$I_R = 5 \mu A$	50			V
Reverse leakage	I_R	$V_R = 20 V$			50	nA
Forward voltage	V_F	$I_F = 100 mA$		0.95	1.2	V
Diode capacitance	C_T	$V_R = 0, f = 100 MHz$		0.3		pF
		$V_R = 5 V, f = 1 MHz$		0.21	0.3	pF
Forward resistance	r_f	$I_F = 5 mA, f = 100 MHz$		1.2	2	Ω
		$I_F = 10 mA, f = 100 MHz$		1		
Charge carrier life time	τ_s	$I_F = 10 mA, I_R = 6 mA, I_R = 3 mA$		75		ns
Series inductance	L_s			1.4		nH

■ Marking

Type	BAR 63	BAR 63-04	BAR 63-05	BAR 63-06
Marking	G3	G4	G5	G6