



BAR63-03W

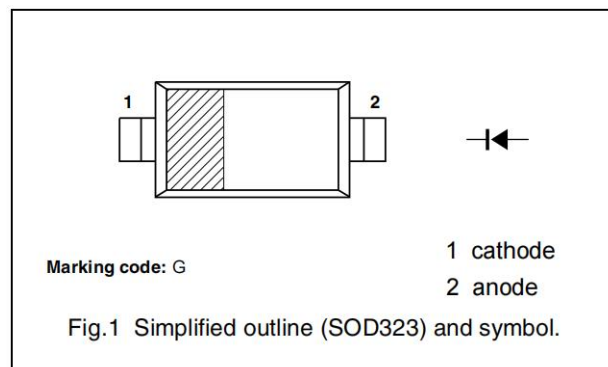
Silicon PIN Diode

Features

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

Absolute Maximum Ratings ($T_A=25^{\circ}\text{C}$)

Parameter	Symbol	Limit	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}	$-55 \sim +150$	$^{\circ}\text{C}$
Storage Temperature Range	T_{STG}	$-55 \sim +150$	$^{\circ}\text{C}$



Thermal Resistance

Parameter	Symbol	Limit	Unit
Junction-ambient	R_{thJA}	≤ 235	K/W
Junction-soldering point	R_{thJS}	≤ 155	K/W

Electrical Characteristics ($T_A=25^{\circ}\text{C}$, unless otherwise specified)

Parameter	Symbol	Condition	Min	Typ	Max	Unit
DC Characteristics						
Breakdown Voltage	V_{BR}	$I_R=5\mu\text{A}$	50			V
Reverse Leakage	I_R	$V_R=20\text{V}$			50	nA
Forward Voltage	V_F	$I_F=100\text{mA}$		0.95	1.2	V
AC Characteristics						
Diode Capacitance	C_T	$V_R=0\text{V}, f=100\text{MHz}$		0.3		pF
Diode Capacitance	C_T	$V_R=5\text{V}, f=1\text{MHz}$		0.21	0.3	pF
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 Lifetime	τ_L	$I_F=10\text{mA}, I_R=6\text{mA}, I_R=3\text{mA}$		75		ns
Series Inductance	L_S			2.0		nH

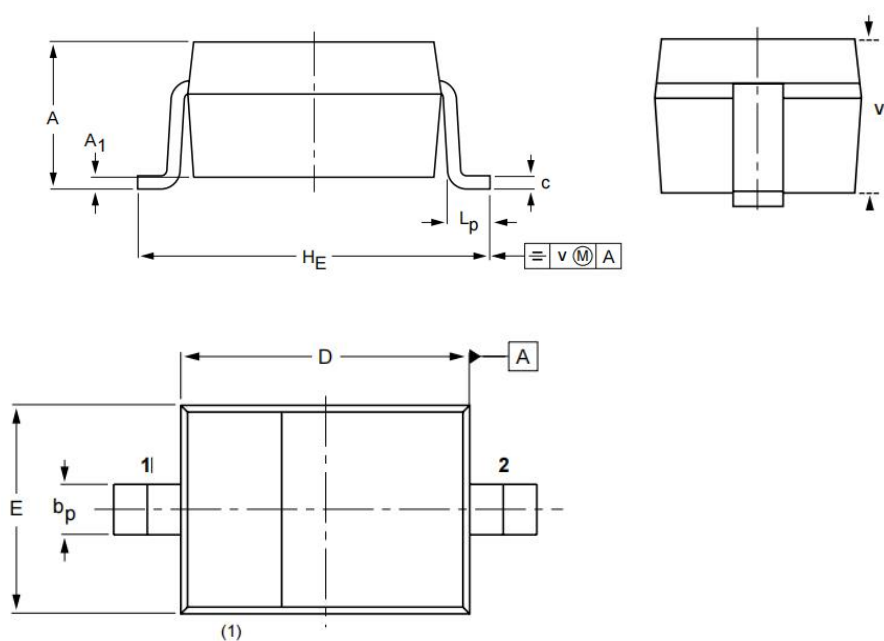


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Package Information

SOD-323

Dimensions in mm



Unit	A	A ₁	b _p	c	D	E	H _E	L _P	v
mm	1.0	0.10	0.35	0.15	1.8	1.40	2.7	0.40	0.90
		0.00	0.25	0.08	1.6	1.20	2.5	0.25	0.80