

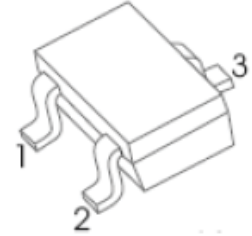
FEATURE

- High voltage ,current controlled
- RF resistor for RF attenuators and switches
- Low diode capacitance
- Low diode forward resistance
- Low series inductance
- For applications up to 3 GHz

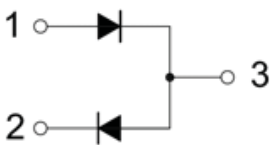
APPLICATION

- RF attenuators and switches

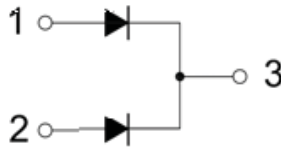
SOT-323



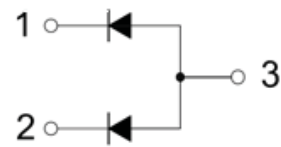
BAS64-04W

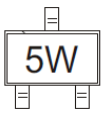
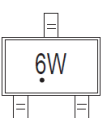


BAS64-05W



BAS64-06W



BAS64-04W	BAS64-05W	BAS64-06W
 	 	 

Solid dot = Green molding compound device, if none, the normal device.

Maximum Ratings ($T_a=25^\circ\text{C}$ unless otherwise specified)

Parameter	Symbol	Value	Unit
Continuous reverse voltage	V_R	175	V
Continuous forward current	I_F	100	mA
Power dissipation	P_D	200	mW
Thermal resistance from junction to ambient	$R_{\theta JA}$	625	$^\circ\text{C/W}$
Junction temperature	T_j	150	$^\circ\text{C}$
Storage temperature	T_{stg}	-55~+150	$^\circ\text{C}$

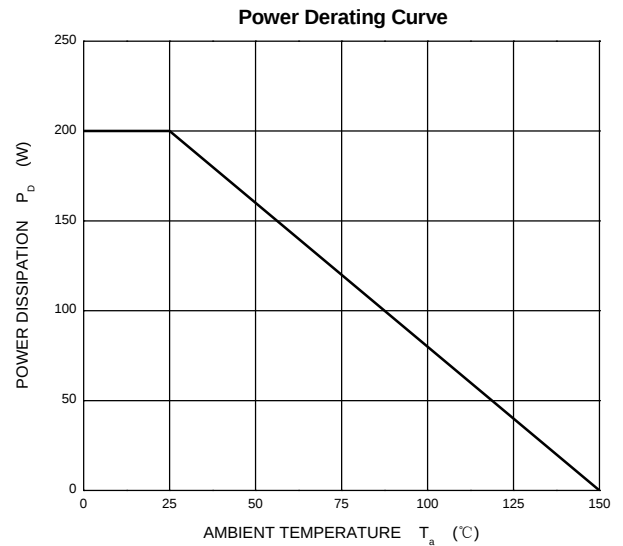
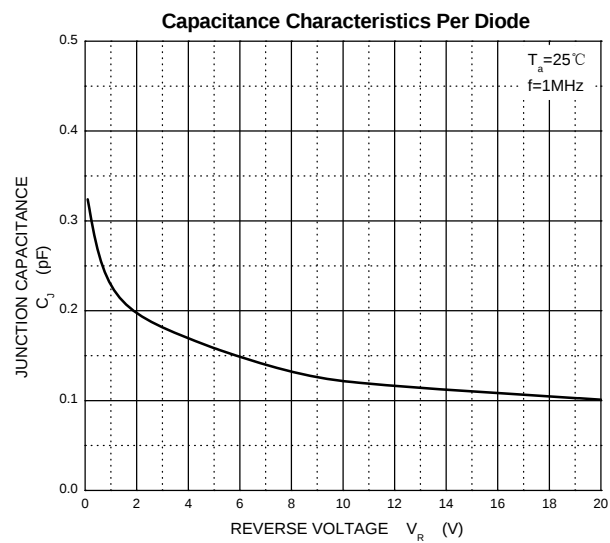
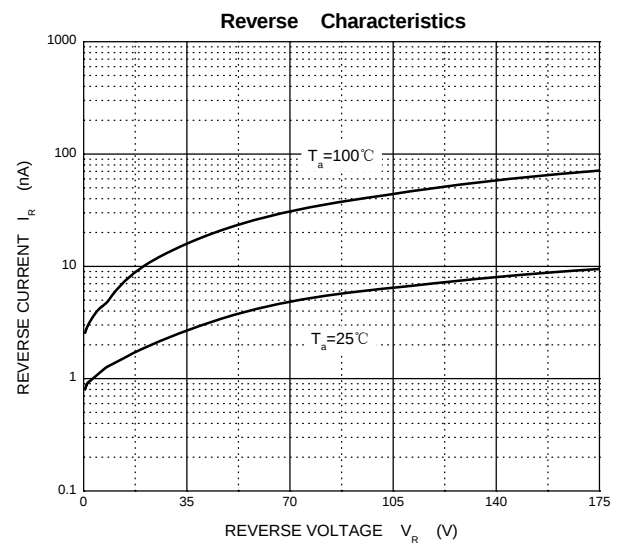
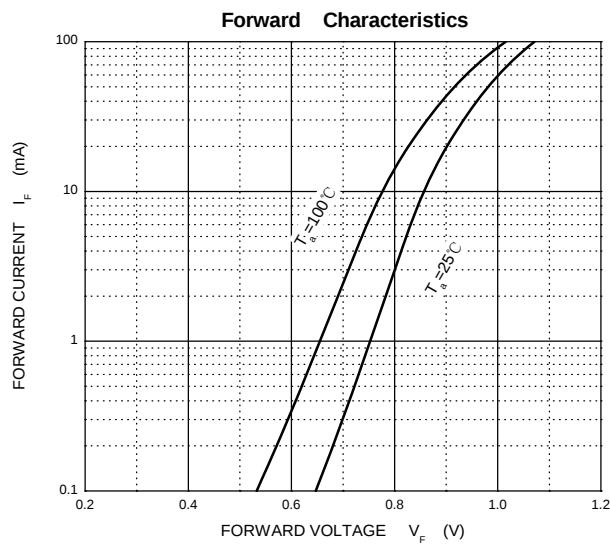
ELECTRICAL CHARACTERISTICS $T_a=25^\circ\text{C}$ unless otherwise specified

Parameter	Symbol	Conditions	Min	Typ	Max	Unit
Forward Voltage	V_F	$I_F=50\text{mA}$			1.1	V
Reverse Current	I_{R1}	$V_{R1}=175\text{V}$			10	μA
	I_{R2}	$V_{R2}=20\text{V}$			1	
Diode Capacitance	C_{d1}	$V_R=0\text{V}$, $f=1\text{MHz}$		0.52		pF
	C_{d2}	$V_R=1\text{V}$, $f=1\text{MHz}$			0.5	
	C_{d3}	$V_R=20\text{V}$, $f=1\text{MHz}$			0.35	
Diode Forward Resistance (note 1)	r_{d1}	$I_F=0.5\text{mA}$, $f=100\text{MHz}$			40	Ω
	r_{d2}	$I_F=1\text{mA}$, $f=100\text{MHz}$			20	
	r_{d3}	$I_F=10\text{mA}$, $f=100\text{MHz}$			3.8	
	r_{d4}	$I_F=100\text{mA}$, $f=100\text{MHz}$			1.35	
Charge Carrier Life Time	τ_L	When switched from $I_F=10\text{mA}$ to $I_R=6\text{mA}$; $R_L=100\Omega$; measured at $I_R=3\text{mA}$		1.55		μs
Series Inductance	L_S	$I_F=10\text{mA}$, $f=100\text{MHz}$ BAS64-04W/06W		1.6		nH
		BAS64-05W		1.4		

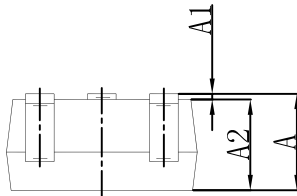
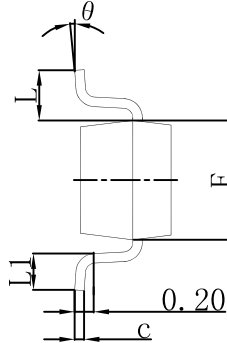
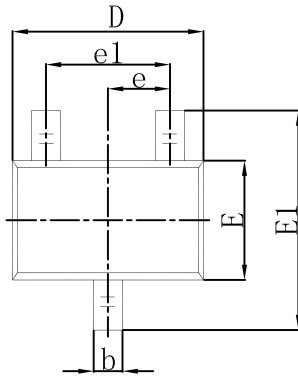
Note:

1. Guaranteed on AQL basis: inspection level S4, AQL 1.0.

Typical Characteristics

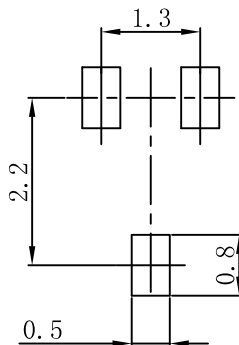


SOT-323 Package Outline Dimensions



Symbol	Dimensions In Millimeters		Dimensions In Inches	
	Min	Max	Min	Max
A	0.900	1.100	0.035	0.043
A1	0.000	0.100	0.000	0.004
A2	0.900	1.000	0.035	0.039
b	0.200	0.400	0.008	0.016
c	0.080	0.150	0.003	0.006
D	2.000	2.200	0.079	0.087
E	1.150	1.350	0.045	0.053
E1	2.150	2.450	0.085	0.096
e	0.650 TYP		0.026 TYP	
e1	1.200	1.400	0.047	0.055
L	0.525 REF		0.021 REF	
L1	0.260	0.460	0.010	0.018
theta	0°	8°	0°	8°

SOT-323 Suggested Pad Layout



Note:

1. Controlling dimension: in millimeters.
2. General tolerance: $\pm 0.05\text{mm}$.
3. The pad layout is for reference purposes only.