Micro Commercial Components
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CA 91311
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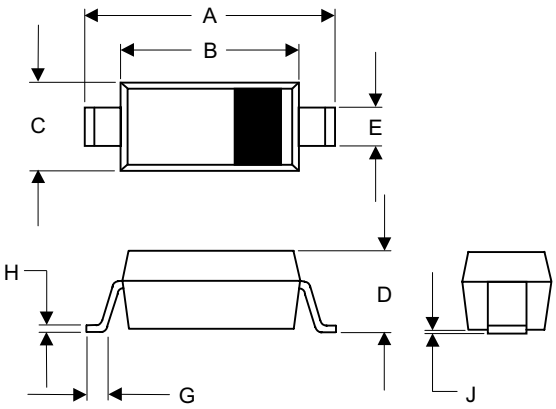
BAP50-03

General Purpose Pin Diodes 200mW

Features

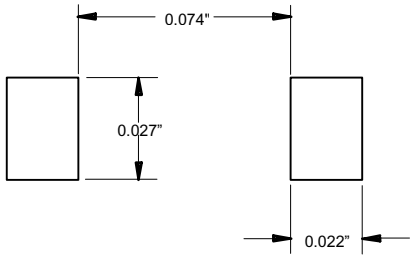
- Lead Free Finish/RoHS Compliant ("P" Suffix designates RoHS Compliant. See ordering information)
- Epoxy meets UL 94 V-0 flammability rating
- Moisture Sensitivity Level 1
- Low diode capacitance
- Low diode forward resistance
- MARKING: A81

SOD-323



DIMENSIONS					
DIM	INCHES		MM		NOTE
	MIN	MAX	MIN	MAX	
A	.090	.107	2.30	2.70	
B	.063	.071	1.60	1.80	
C	.045	.053	1.15	1.35	
D	.031	.045	0.80	1.15	
E	.010	.016	0.25	0.40	
G	.004	.018	0.10	0.45	
H	.004	.010	0.10	0.25	
J	-----	.006	-----	0.15	

SUGGESTED SOLDER PAD LAYOUT



Maximum Ratings @ 25°C Unless Otherwise Specified

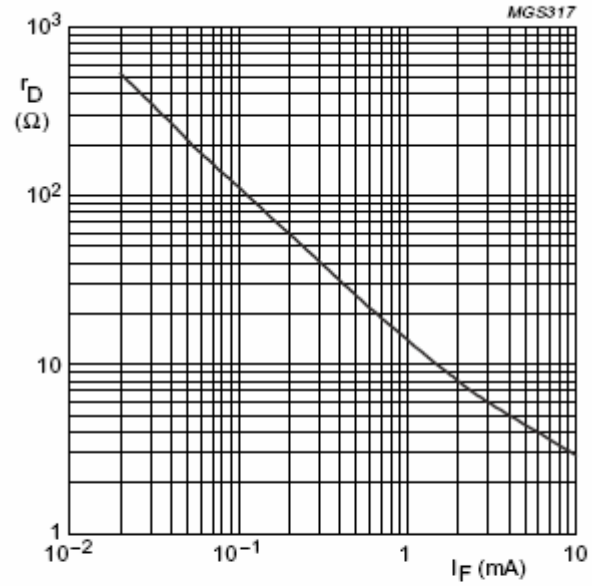
Parameter	Symbol	Limits	Unit
Continuous Reverse Voltage	V_R	50	V
Forward Current	I_F	50	mA
Power Dissipation(T_A=90°C)	P_D	200	mW
Junction and Storage temperature	T_j, P_{stg}	-65~+150	℃
Thermal Resistance Junction to Ambient	R_{thJA}	85	K/W

Electrical Characteristics @ 25°C Unless Otherwise Specified

Parameter	Symbol	Min.	Max.	Unit	Conditions
Continuous reverse voltage	V_R	50		V	I_R=10μA
Forward voltage	V_F		1.1	V	I_F=50mA
Reverse current	I_R		100	nA	V_R=50V
Diode capacitance	C_{d1}		1.11	pF	V_R=0V,f=1MHz
	C_{d2}		0.55	pF	V_R=1V,f=1MHz
	C_{d3}		0.35	pF	V_R=5V,f=1MHz
Diode forward resistance	r_D		40	Ω	I_F=0.5mA, f=100MHz; Note 1
	r_D		25	Ω	I_F=1.0mA, f=100MHz; Note 1
	r_D		5	Ω	I_F=10mA, f=100MHz; Note 1

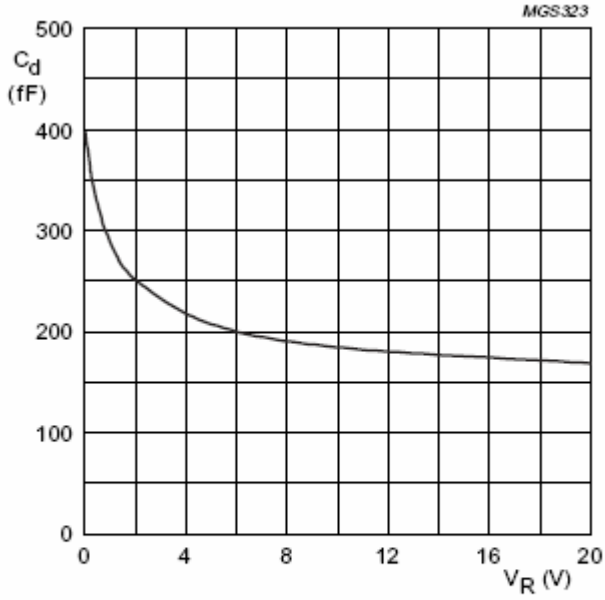
Note 1. Guaranteed on AQL basis: inspection level S4,AQL 1.0.

Typical Characteristics



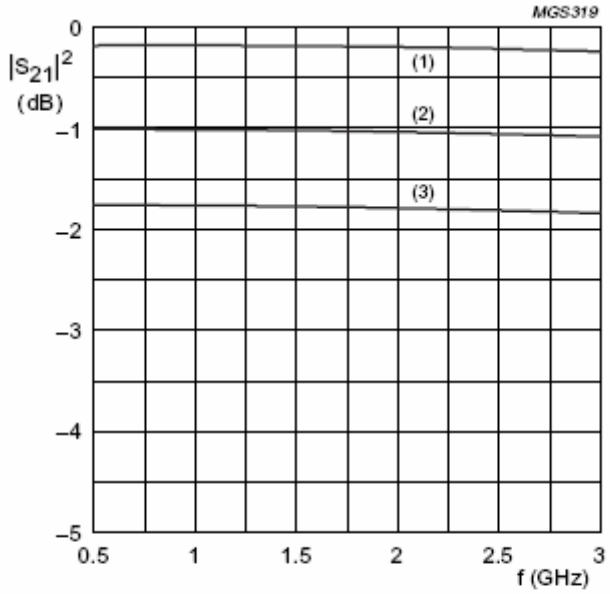
f = 100 MHz; T_j = 25 °C.

Fig.1 Forward resistance as a function of forward current; typical values.



f = 1 MHz; T_j = 25 °C.

Fig.2 Diode capacitance as a function of reverse voltage; typical values.

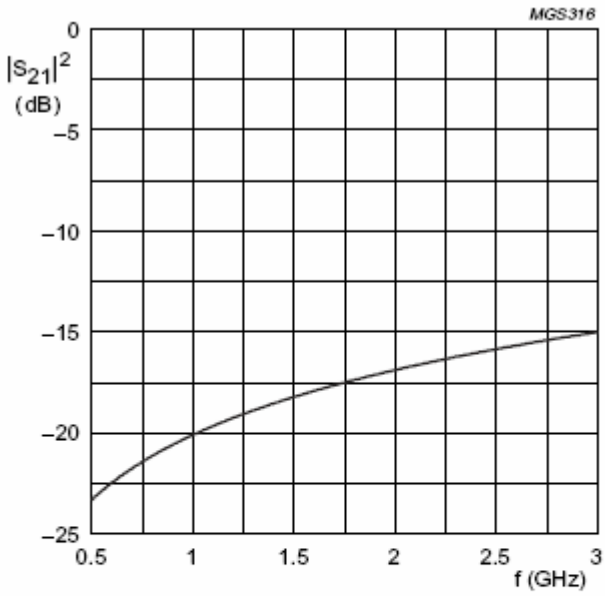


(1) I_F = 10 mA. (2) I_F = 1 mA. (3) I_F = 0.5 mA.

Diode inserted in series with a 50 Ω stripline circuit and biased via the analyzer Tee network.

T_{amb} = 25 °C.

Fig.3 Insertion loss ($|S_{21}|^2$) of the diode as a function of frequency; typical values.



Diode zero biased and inserted in series with a 50 Ω stripline circuit.

T_{amb} = 25 °C.

Fig.4 Isolation ($|S_{21}|^2$) of the diode as a function of frequency; typical values.

Ordering Information

Device	Packing
(Part Number)-TP	Tape&Reel;3Kpcs/Reel