



Chipsmall Limited consists of a professional team with an average of over 10 year of expertise in the distribution of electronic components. Based in Hongkong, we have already established firm and mutual-benefit business relationships with customers from,Europe,America and south Asia,supplying obsolete and hard-to-find components to meet their specific needs.

With the principle of "Quality Parts,Customers Priority,Honest Operation,and Considerate Service",our business mainly focus on the distribution of electronic components. Line cards we deal with include Microchip,ALPS,ROHM,Xilinx,Pulse,ON,Everlight and Freescale. Main products comprise IC,Modules,Potentiometer,IC Socket,Relay,Connector.Our parts cover such applications as commercial,industrial, and automotives areas.

We are looking forward to setting up business relationship with you and hope to provide you with the best service and solution. Let us make a better world for our industry!



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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

Maximum Ratings @ 25°C Unless Otherwise Specified

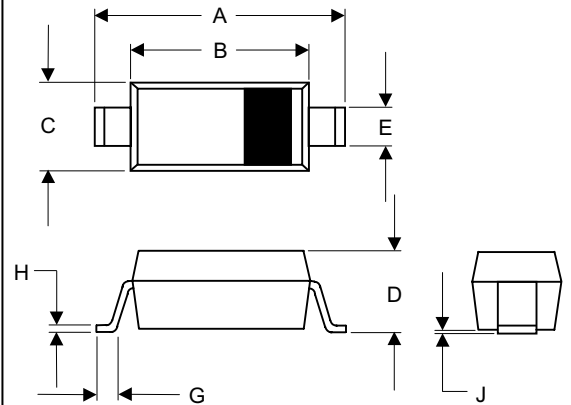
Parameter	Symbol	Limits	Unit
Continuous Reverse Voltage	V_R	50	V
Forward Current	I_F	50	mA
Power Dissipation ($T_A=90^\circ\text{C}$)	P_D	200	mW
Junction and Storage temperature	T_j, P_{stg}	-65~+150	°C
Thermal Resistance Junction to Ambient	R_{thJA}	85	K/W

Electrical Characteristics @ 25°C Unless Otherwise Specified

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

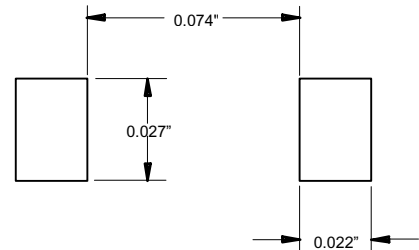
Note 1. Guaranteed on AQL basis: inspection level S4, AQL 1.0.

SOD-323

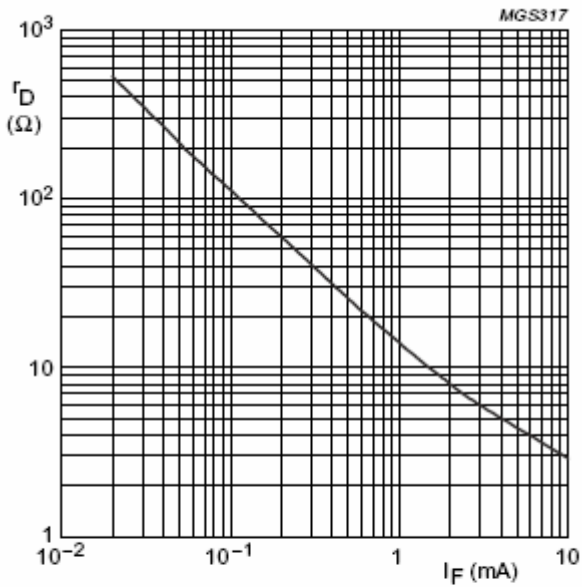


DIM	DIMENSIONS				NOTE
	INCHES		MM		
	MIN	MAX	MIN	MAX	
A	.090	.107	2.30	2.70	
B	.063	.071	1.60	1.80	
C	.045	.053	1.15	1.35	
D	.031	.045	0.80	1.15	
E	.010	.016	0.25	0.40	
G	.004	.018	0.10	0.45	
H	.004	.010	0.10	0.25	
J	-----	.006	-----	0.15	

SUGGESTED SOLDER PAD LAYOUT

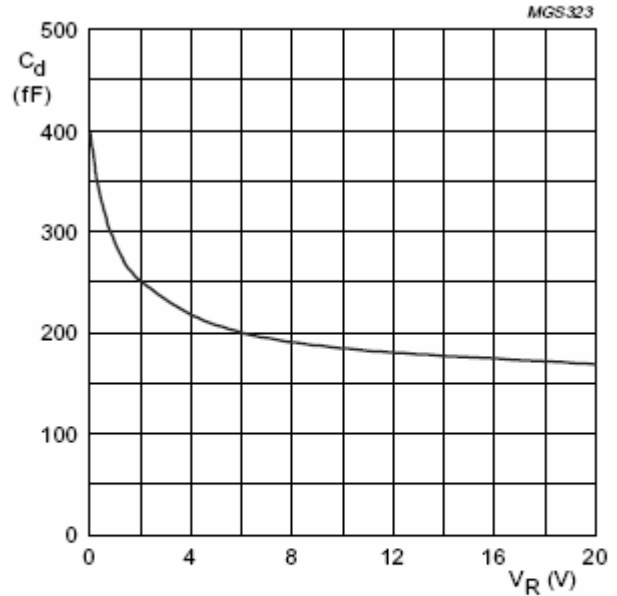


Typical Characteristics



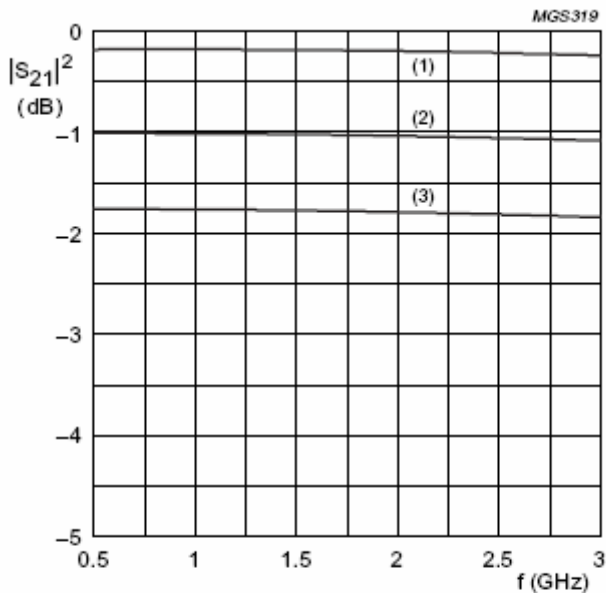
$f = 100 \text{ MHz}; T_j = 25 \text{ }^\circ\text{C}.$

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



$f = 1 \text{ MHz}; T_j = 25 \text{ }^\circ\text{C}.$

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

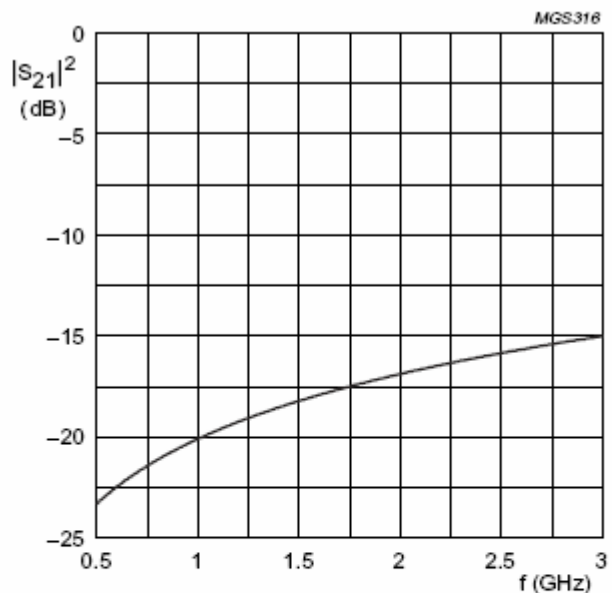


(1) $I_F = 10 \text{ mA}.$ (2) $I_F = 1 \text{ mA}.$ (3) $I_F = 0.5 \text{ mA}.$

Diode inserted in series with a $50 \text{ } \Omega$ stripline circuit and biased via the analyzer Tee network.

$T_{amb} = 25 \text{ }^\circ\text{C}.$

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 $50 \text{ } \Omega$ stripline circuit.
 $T_{amb} = 25 \text{ }^\circ\text{C}.$

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



Micro Commercial Components

Ordering Information

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

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