

# B0540WS-TP Datasheet

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DiGi Electronics Part Number	B0540WS-TP-DG
Manufacturer	<a href="#">Micro Commercial Co</a>
Manufacturer Product Number	B0540WS-TP
Description	DIODE SCHOTTKY 40V 500MA SOD323
Detailed Description	Diode 40 V 500mA Surface Mount SOD-323

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## Purchase and inquiry

Manufacturer Product Number:

B0540WS-TP

Series:

-

Technology:

Schottky

Current - Average Rectified (Io):

500mA

Speed:

Fast Recovery =< 500ns, > 200mA (Io)

Capacitance @ Vr, F:

30pF @ 4V, 1MHz

Package / Case:

SC-76, SOD-323

Operating Temperature - Junction:

-55°C ~ 125°C

Manufacturer:

Micro Commercial Co

Product Status:

Active

Voltage - DC Reverse (Vr) (Max):

40 V

Voltage - Forward (Vf) (Max) @ If:

550 mV @ 500 mA

Current - Reverse Leakage @ Vr:

80 µA @ 40 V

Mounting Type:

Surface Mount

Supplier Device Package:

SOD-323

Base Product Number:

B0540

## Environmental & Export classification

RoHS Status:

ROHS3 Compliant

REACH Status:

REACH Unaffected

HTSUS:

8541.10.0070

Moisture Sensitivity Level (MSL):

1 (Unlimited)

ECCN:

EAR99

## Features

- Halogen Free. "Green" Device (Note 1)
- Lead Free Finish/RoHS Compliant ("P" Suffix Designates RoHS Compliant. See Ordering Information)
- Extremely Low Thermal Resistance
- For Surface Mount Application And High Current Capability
- Epoxy Meets UL 94 V-0 Flammability Rating
- Moisture Sensitivity Level 1

## Maximum Ratings

- Operating Junction Temperature Range: -55°C to +125°C
- Storage Temperature Range: -55°C to +150°C
- Maximum Thermal Resistance: 400°C/W Junction to Ambient

MCC Part Number	Device Marking	Maximum Recurrent Peak Reverse Voltage	Maximum RMS Voltage	Maximum DC Blocking Voltage
B0540WS	4	40V	28V	40V

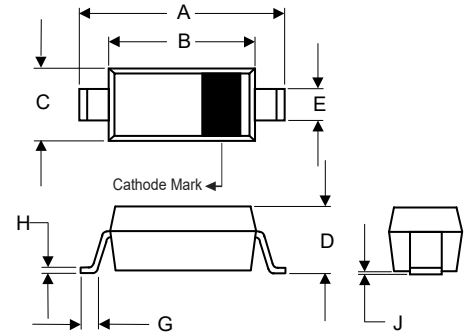
## Electrical Characteristics @ 25°C Unless Otherwise Specified

Average Forward Current	$I_{F(AV)}$	0.5A	$T_A=25\text{ }^\circ\text{C}$
Peak Forward Surge Current	$I_{FSM}$	5A	8.3ms Half Sine
Maximum Instantaneous Forward Voltage	$V_F$	0.55V	$I_{FM}=0.5A$ ; $T_J=25\text{ }^\circ\text{C}$
Maximum DC Reverse Current at Rated DC Blocking Voltage	$I_R$	0.08mA	$V_R = 40V$
Typical Junction Capacitance	$C_J$	30pF	Measured at 1.0MHz, $V_R=4.0V$
Power Dissipation	$P_D$	250mW	

Note: 1. Halogen free "Green" products are defined as those which contain <900ppm bromine, <900ppm chlorine (<1500ppm total Br + Cl) and <1000ppm antimony compounds.

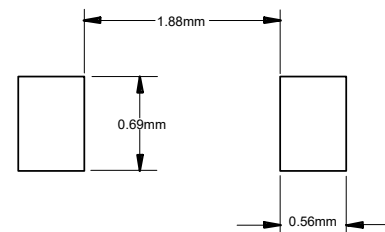
# 0.5 Amp Schottky Rectifier 40 Volts

## SOD-323



DIM	DIMENSIONS				NOTE
	INCHES		MM		
	MIN	MAX	MIN	MAX	
A	0.090	0.107	2.30	2.70	
B	0.063	0.071	1.60	1.80	
C	0.045	0.053	1.15	1.35	
D	0.031	0.045	0.80	1.15	
E	0.010	0.016	0.25	0.40	
G	0.004	0.018	0.10	0.45	
H	0.004	0.010	0.10	0.25	
J	-----	0.006	-----	0.15	

## Suggested Solder Pad Layout



Curve Characteristics

Fig. 1 - Forward Characteristics

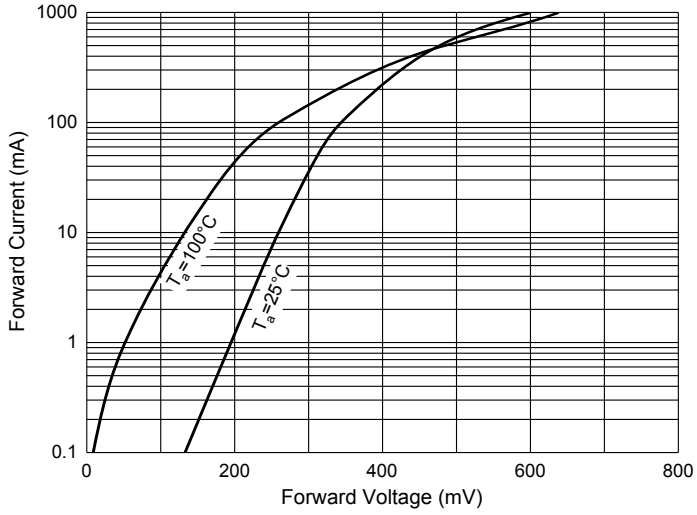


Fig. 2 - Reverse Characteristics

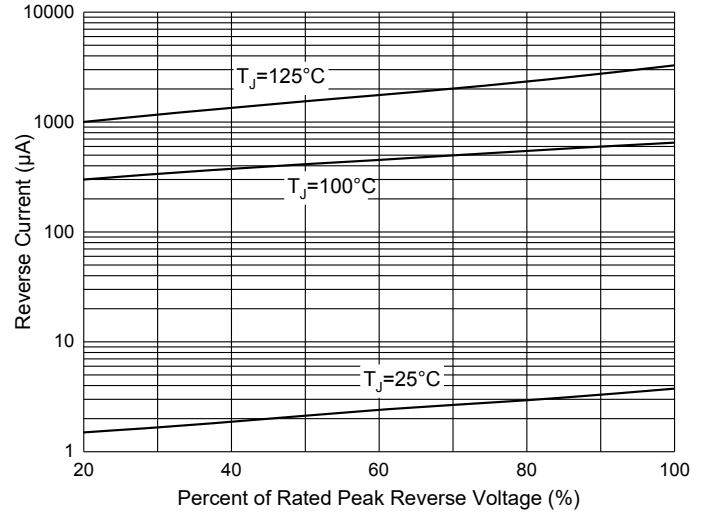


Fig. 3 - Capacitance Characteristics

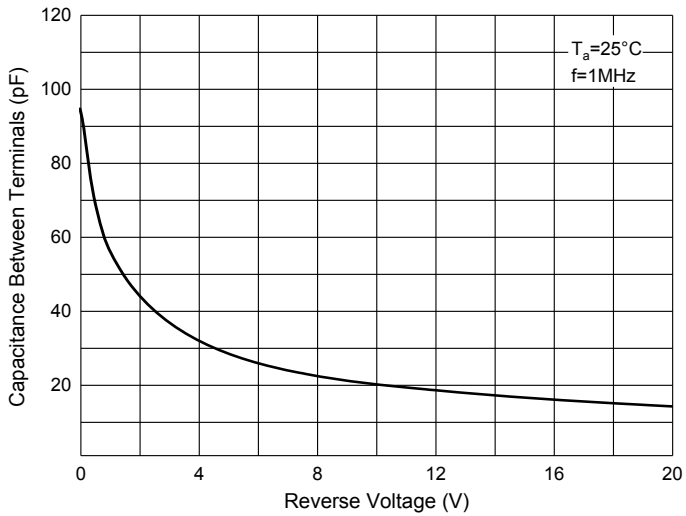
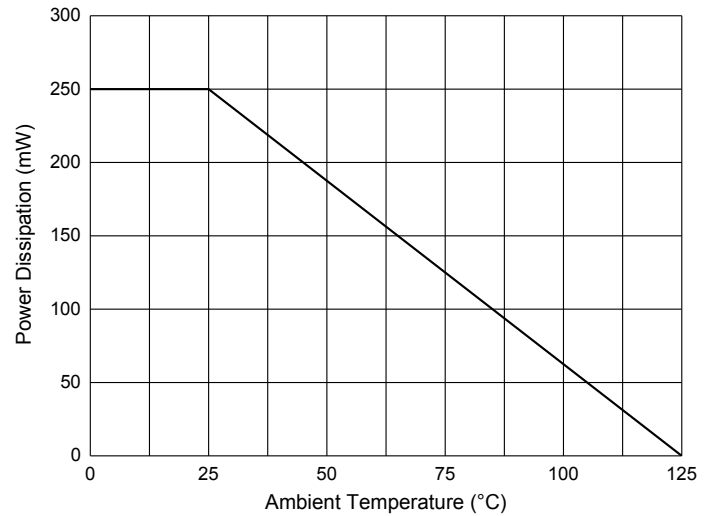


Fig. 4 - Power Derating Curve



## Ordering Information

Device	Packing
Part Number-TP	Tape&Reel: 3Kpcs/Reel

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