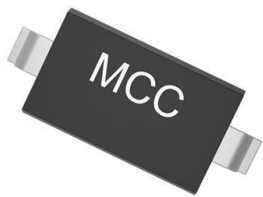


# RB501V-40-TP Datasheet

[www.digi-electronics.com](http://www.digi-electronics.com)



|                              |  |
|------------------------------|--|
| DiGi Electronics Part Number | RB501V-40-TP-DG                        |
| Manufacturer                 | <a href="#">Micro Commercial Co</a>    |
| Manufacturer Product Number  | RB501V-40-TP                           |
| Description                  | DIODE SCHOTTKY 40V 100MA SOD323        |
| Detailed Description         | Diode 40 V 100mA Surface Mount SOD-323 |

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This model RB501V-40-TP is available at DiGi Electronics.

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## Purchase and inquiry

Manufacturer Product Number:

RB501V-40-TP

Series:

-

Technology:

Schottky

Current - Average Rectified (Io):

100mA

Speed:

Small Signal  $\leq$  200mA (Io), Any Speed

Capacitance @ Vr, F:

6pF @ 10V, 1MHz

Package / Case:

SC-76, SOD-323

Operating Temperature - Junction:

125°C (Max)

Manufacturer:

Micro Commercial Co

Product Status:

Active

Voltage - DC Reverse (Vr) (Max):

40 V

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

550 mV @ 100 mA

Current - Reverse Leakage @ Vr:

30  $\mu$ A @ 10 V

Mounting Type:

Surface Mount

Supplier Device Package:

SOD-323

Base Product Number:

RB501V-40

## 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)
- Small Surface Mounting Type
- Low Reverse Current And Low Forward Voltage
- High Reliability
- 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
- Thermal Resistance: 500°C/W Junction to Ambient

| MCC Part Number | Device Marking | Maximum Recurrent Peak Reverse Voltage | Maximum DC Blocking Voltage |
|-----------------|----------------|--|-----------------------------|
| RB501V-40       | 4              | 45V                                    | 40V                         |

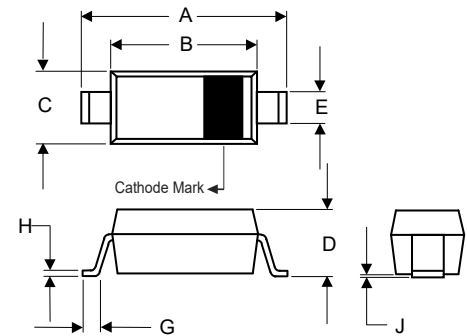
## Electrical Characteristics @ 25°C Unless Otherwise Specified

|                            |           |                          |                               |
|----------------------------|-----------|--------------------------|-------------------------------|
| Mean Rectifying Current    | $I_O$     | 100mA                    |                               |
| Peak Forward Surge Current | $I_{FSM}$ | 1A                       | $t=8.3ms$                     |
| Forward Voltage            | $V_F$     | 0.55V(Max)<br>0.34V(Max) | $I_F=100mA$ ;<br>$I_F=10mA$ ; |
| Reverse Current            | $I_R$     | 30 $\mu$ A(Max)          | $V_R=10V$                     |
| Capacitance Terminal       | $C_T$     | 6.0pF(Typ)               | $V_R=10V, f=1MHz$             |

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

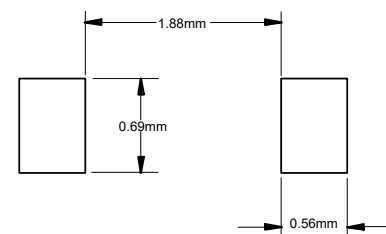
# 0.1 Amp Schottky Barrier Rectifier 40 Volts

## 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

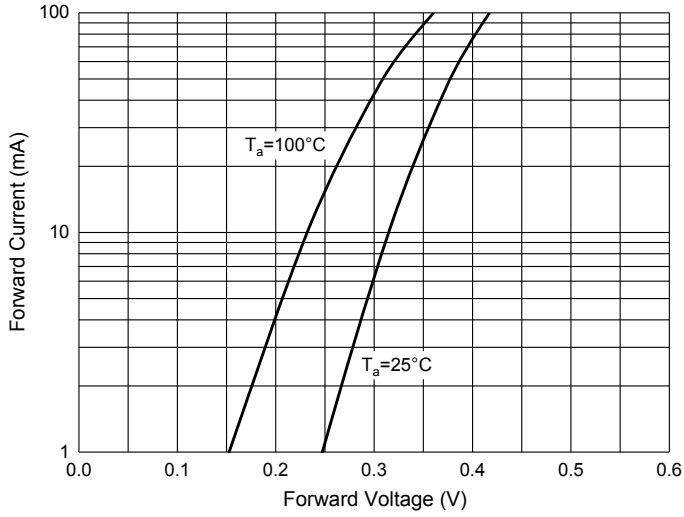


Fig. 2 - Reverse Characteristics

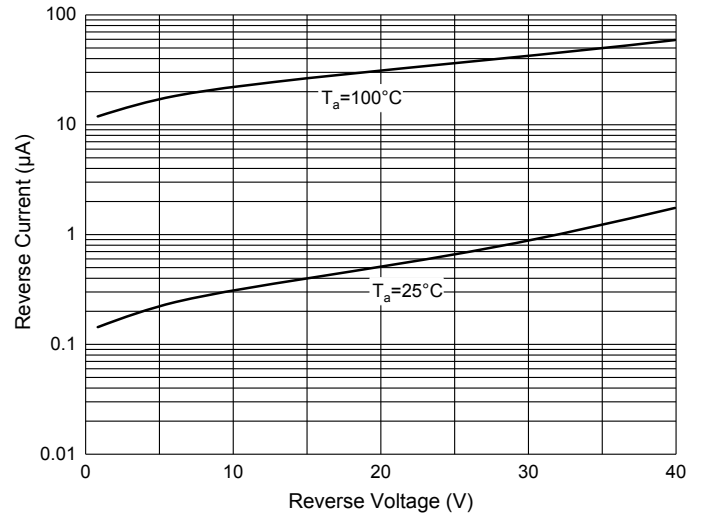


Fig. 3 - Capacitance Characteristics

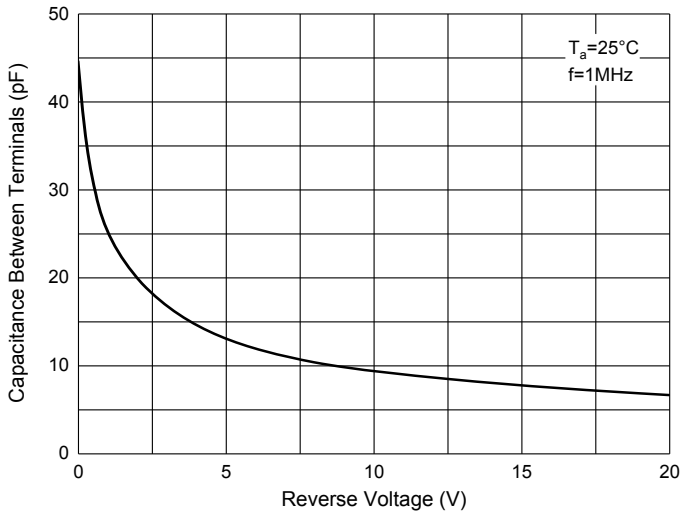
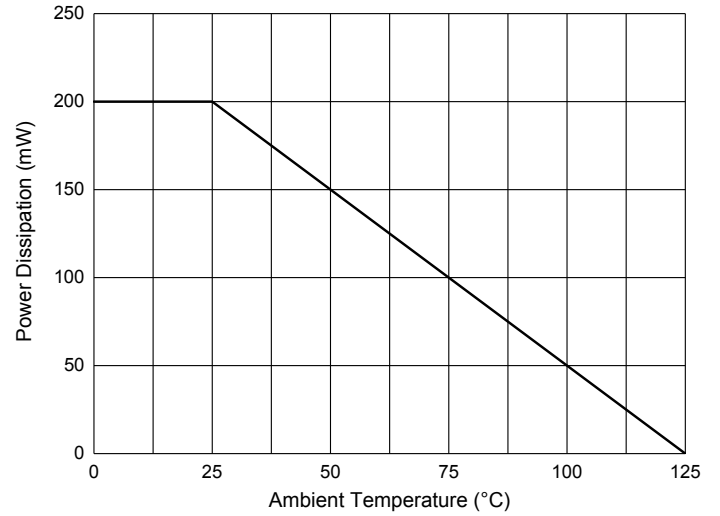


Fig. 4 - Power Derating Curve



## Ordering Information

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

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