

## Features

- Small Surface Mounting Type
- Epoxy Meets UL 94 V-0 Flammability Rating
- Moisture Sensitivity Level 1
- Lead Free Finish/RoHS Compliant ("P" Suffix Designates RoHS Compliant. See Ordering Information)
- Halogen Free. "Green" Device (Note 1)

## Maximum Ratings

- Operating Junction Temperature Range: -55°C to +125°C
- Storage Temperature Range: -55°C to +150°C
- Thermal Resistance: 1000°C/W Junction to Ambient

| MCC Part Number | Repetitive Peak Reverse Voltage<br>$V_{RRM}$ | RMS Reverse Voltage<br>$V_{R(RMS)}$ | DC Blocking Voltage<br>$V_R$ |
|-----------------|--|-------------------------------------|------------------------------|
| RB520S-40L2     | 40V  | 28V                                 | 40V                          |

## Electrical Characteristics @ 25°C Unless Otherwise Specified

| Parameter                  | Symbol      | Value |
|----------------------------|-------------|-------|
| Average Rectified Current  | $I_{F(AV)}$ | 200mA |
| Peak Forward Surge Current | $I_{FSM}$   | 1A    |
| Power Dissipation          | $P_D$       | 100mW |

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

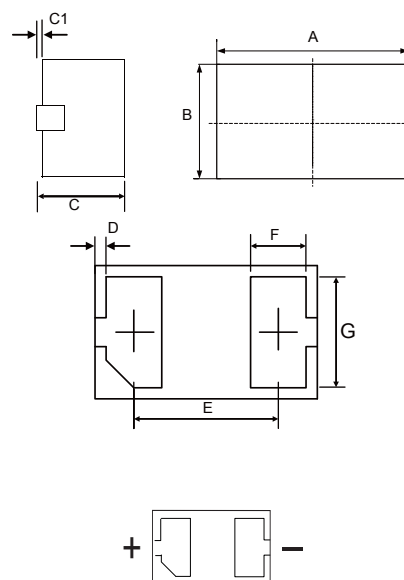
2. Valid Provided that Terminals are Kept at Ambient Temperature.

## Internal Structure and Marking Code



# 100 mW Schottky Rectifier 40 Volts

## DFN1006-2L



| DIM | INCHES   |       | MM      |      | NOTE |
|-----|----------|-------|---------|------|------|
|     | MIN      | MAX   | MIN     | MAX  |      |
| A   | 0.037    | 0.041 | 0.95    | 1.05 |      |
| B   | 0.022    | 0.026 | 0.55    | 0.65 |      |
| C   | 0.016    | 0.020 | 0.40    | 0.50 |      |
| C1  | -----    | 0.002 | -----   | 0.05 |      |
| D   | 0.001    | 0.003 | 0.02    | 0.08 |      |
| E   | 0.026BSC |       | 0.65BSC |      |      |
| F   | 0.008    | 0.012 | 0.20    | 0.30 |      |
| G   | 0.018    | 0.022 | 0.45    | 0.55 |      |

**Electrical Characteristics @ 25°C (Unless Otherwise Specified)**

| Parameter                 | Symbol   | Conditions  | Min. | Typ. | Max. | Units   |
|---------------------------|----------|---|------|------|------|---------|
| Reverse Breakdown Voltage | $V_{BR}$ | $I_R=100\mu A$  | 40   |      |      | V       |
| Forward Voltage           | $V_F$    | $I_F=10mA$  |      |      | 0.39 | V       |
|                           |          | $I_F=100mA$   |      |      | 0.55 | V       |
| Reverse Current           | $I_R$    | $V_R=10V$   |      |      | 1    | $\mu A$ |
|                           |          | $V_R=40V$   |      |      | 10   | $\mu A$ |
| Junction Capacitance      | $C_J$    | $V_R = 0V, f = 1MHz$                                      |      |      | 20   | pF      |
| Reverse Recovery Time     | $t_{rr}$ | $I_F=I_R=10mA,$<br>$I_{rr}=0.1 \times I_R, R_L=100\Omega$ |      |      | 5    | ns      |

\* Pulse Test: Pulse Width 300  $\mu sec$ , Duty Cycle 2%

## Curve Characteristics

Fig. 1 - Typical Instantaneous Forward Characteristics

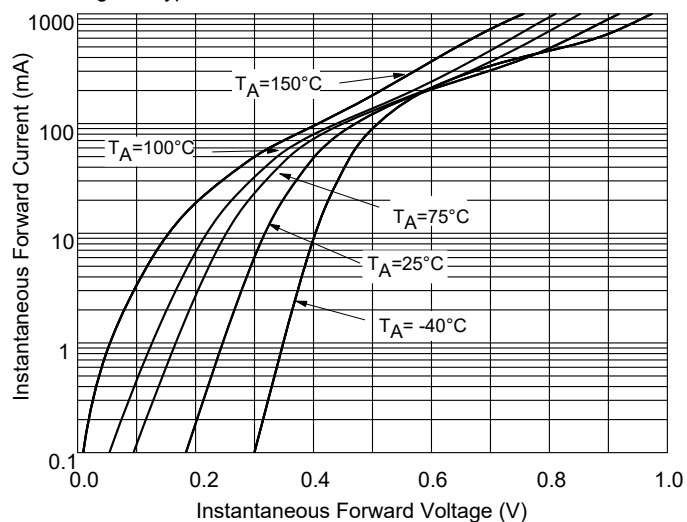


Fig. 2 - Typical Reverse Leakage Characteristics

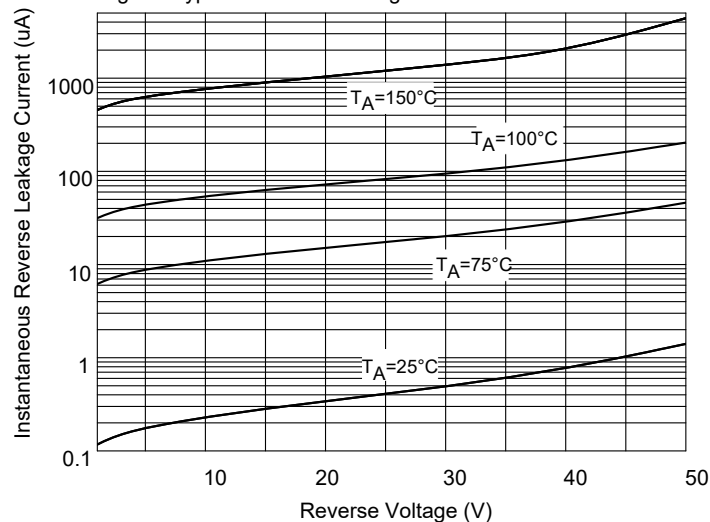


Fig. 3 - Capacitance Characteristics

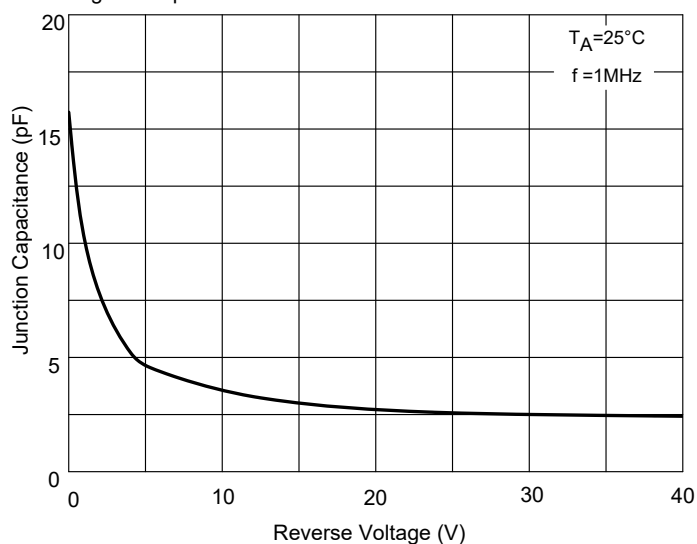
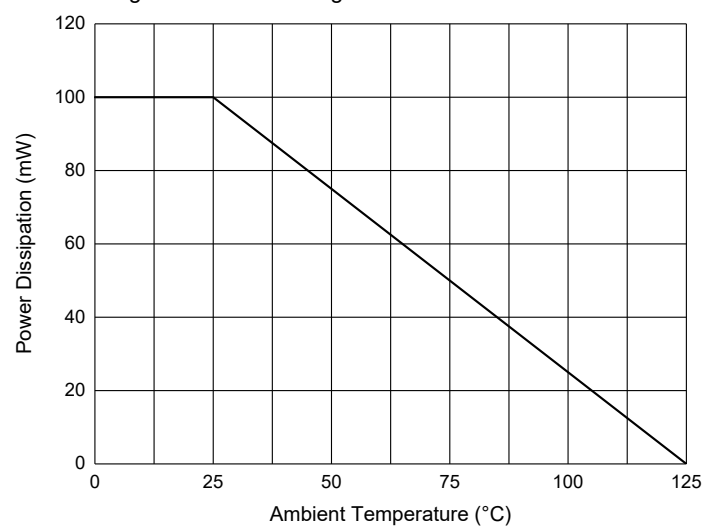


Fig. 4 - Power Derating Curve



## Ordering Information

| Device         | Packing               |
|----------------|-----------------------|
| Part Number-TP | Tape&Reel;10Kpcs/Reel |

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