

## Small Signal Product

### Surface Mount Schottky

#### FEATURES

- Designed for mounting on small surface
- Extremely thin / leadless package
- Low capacitance
- Low forward voltage drop
- Packing code with suffix "G" means green compound (halogen-free)


**1005**


#### MECHANICAL DATA

- Case: 1005
- Terminal: Gold plated, solderable per MIL-STD-750, method 2026
- Polarity: Indicated by cathode band
- Weight: 6 mg (approximately)
- Marking code: BG

| MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS (T <sub>A</sub> =25°C unless otherwise noted)                                     |                     |             |      |
|----------------------------------------------------------------------------------------------------------------------------------|---------------------|-------------|------|
| PARAMETER                                                                                                                        | SYMBOL              | VALUE       | UNIT |
| Repetitive Peak Reverse Voltage                                                                                                  | V <sub>RRM</sub>    | 70          | V    |
| Reverse Voltage                                                                                                                  | V <sub>R</sub>      | 70          | V    |
| RMS Reverse Voltage                                                                                                              | V <sub>R(RMS)</sub> | 49          | V    |
| Average Forward Current                                                                                                          | I <sub>O</sub>      | 70          | mA   |
| Peak Forward Surge Current 8.3ms Single Half Sine-Wave Superimposed on Rate Load (JEDEC Method)                                  | I <sub>FSM</sub>    | 100         | mA   |
| Power Dissipation                                                                                                                | P <sub>d</sub>      | 200         | mW   |
| Forward Voltage<br>I <sub>F</sub> = 1 mA<br>I <sub>F</sub> = 15 mA                                                               | V <sub>F</sub>      | 0.41<br>1.0 | V    |
| Reverse Leakage Current<br>V <sub>R</sub> = 50 V                                                                                 | I <sub>R</sub>      | 0.1         | μA   |
| Typical Capacitance Between Terminals<br>V <sub>R</sub> = 0 V, f = 1.0 MHz Reverse Voltage                                       | C <sub>J</sub>      | 2           | pF   |
| Reverse Recovery Time<br>( I <sub>F</sub> = I <sub>R</sub> = 10mA, I <sub>RR</sub> = 0.1×I <sub>R</sub> , R <sub>L</sub> =100Ω ) | t <sub>rr</sub>     | 5           | ns   |
| Junction Temperature                                                                                                             | T <sub>J</sub>      | -65 to +125 | °C   |
| Storage Temperature                                                                                                              | T <sub>STG</sub>    | -65 to +125 | °C   |

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**RATINGS AND CHARACTERISTICS CURVES**

( $T_A=25^{\circ}\text{C}$  unless otherwise noted)

Fig.1 Forward Characteristics

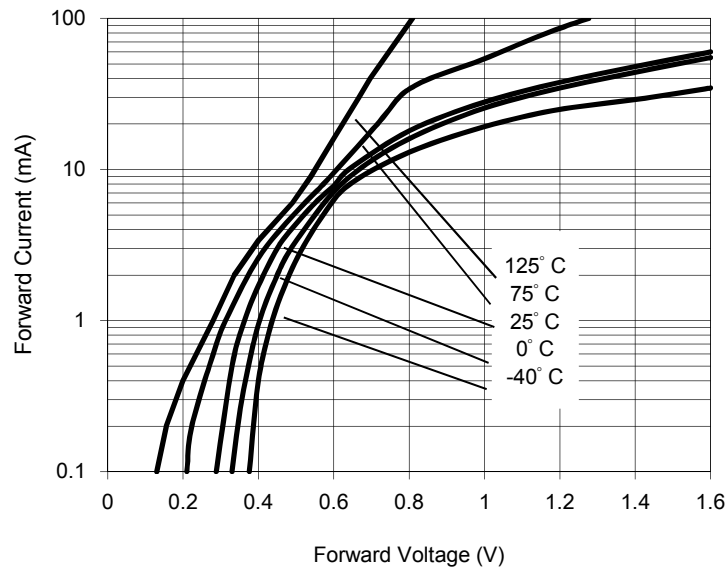


Fig. 2 Reverse Characteristics

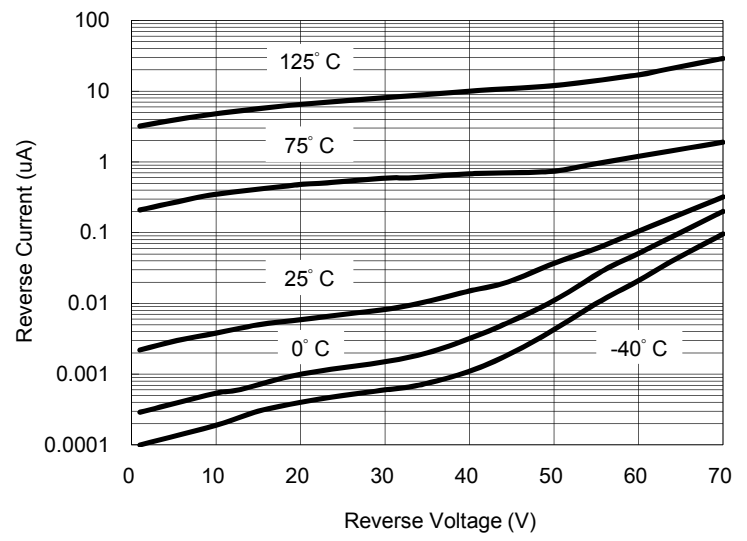


Fig. 3 Capacitance Between Terminals Characteristics

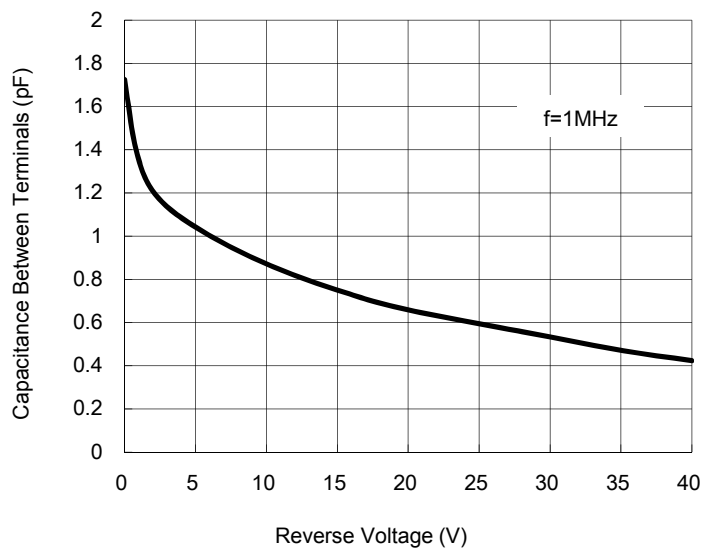
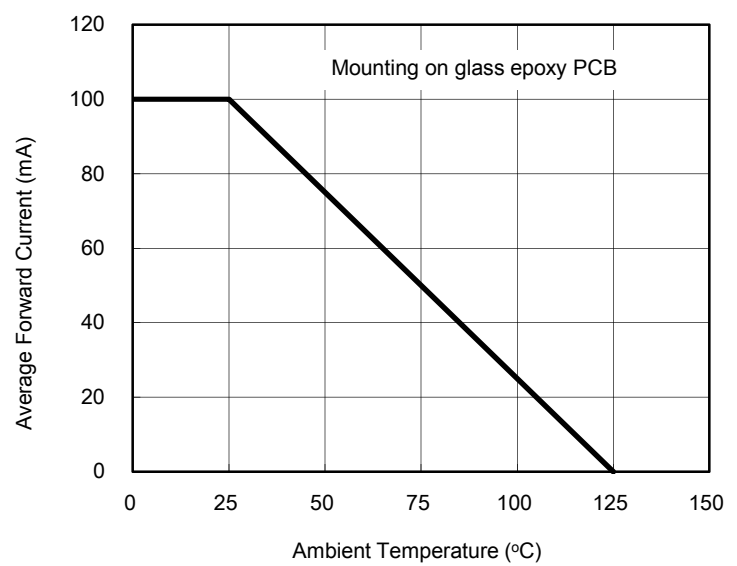


Fig. 4 Current Derating Curve



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### ORDERING INFORMATION

| PART NO. | PART NO.<br>SUFFIX | PACKING CODE | PACKING CODE<br>SUFFIX | PACKAGE | PACKING      |
|----------|--------------------|--------------|------------------------|---------|--------------|
| TSS70L   | -xx<br>(Note 1)    | RW           | G                      | 1005    | 4K / 7" Reel |

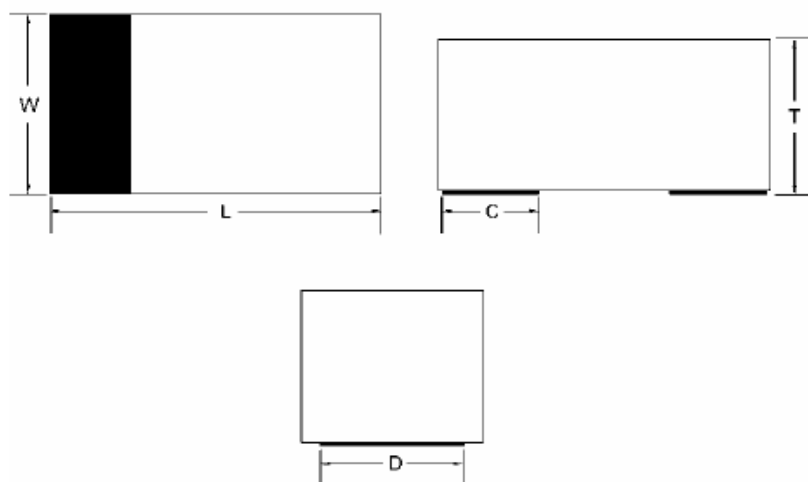
Note 1: Part No. Suffix „-xx “ would be used for special requirement

### EXAMPLE

| PREFERRED<br>PART NO. | PART NO. | PART NO.<br>SUFFIX | PACKING CODE | PACKING CODE<br>SUFFIX | DESCRIPTION                                      |
|-----------------------|----------|--------------------|--------------|------------------------|--------------------------------------------------|
| TSS70L RWG            | TSS70L   |                    | RW           | G                      | Multiple manufacture<br>source<br>Green compound |
| TSS70L-F0 RWG         | TSS70L   | -F0                | RW           | G                      | Define manufacture<br>source<br>Green compound   |

### PACKAGE OUTLINE DIMENSION

1005



| DIM. | Unit (mm) |      |      | Unit (inch) |       |       |
|------|-----------|------|------|-------------|-------|-------|
|      | Min       | Typ  | Max  | Min         | Typ   | Max   |
| L    | 2.40      | -    | 2.60 | 0.094       | -     | 0.102 |
| W    | 1.10      | -    | 1.30 | 0.043       | -     | 0.051 |
| T    | 0.70      | -    | 0.90 | 0.028       | -     | 0.035 |
| C    | -         | 0.50 | -    | -           | 0.020 | -     |
| D    | -         | 1.00 | -    | -           | 0.039 | -     |

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