

## Small Signal Product

# Surface Mount Schottky Barrier

### 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)



0603



### MECHANICAL DATA

- Case: 0603
- Molding compound, UL flammability classification rating 94V-0
- Terminal: Gold plated, solderable per MIL-STD-750, method 2026
- Polarity : Indicated by cathode band
- Weight : 0.003 g (approximately)
- Marking code: BB

| 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> | 35          | V    |
| DC Reverse Voltage                                                                           | V <sub>R</sub>   | 30          | V    |
| Average Forward Current                                                                      | I <sub>O</sub>   | 200         | mA   |
| Peak Forward Surge Current 8.3 ms Single Half Sine-Wave Superimposed on Rate Load            | I <sub>FSM</sub> | 1.0         | A    |
| Power Dissipation                                                                            | P <sub>d</sub>   | 150         | mW   |
| Forward Voltage @ I <sub>F</sub> =200mA                                                      | V <sub>F</sub>   | 0.6         | V    |
| Reverse Leakage Current V <sub>R</sub> =10V                                                  | I <sub>R</sub>   | 1.0         | μA   |
| Typical Capacitance Between Terminals V <sub>R</sub> =1V, f =1.0MHz Reverse Voltage          | C <sub>J</sub>   | 1.5         | pF   |
| Junction Temperature                                                                         | T <sub>J</sub>   | -40 to +125 | °C   |
| Storage Temperature                                                                          | T <sub>STG</sub> | -40 to +125 | °C   |

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### RATINGS AND CHARACTERISTICS CURVES

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

Fig.1 Forward characteristics

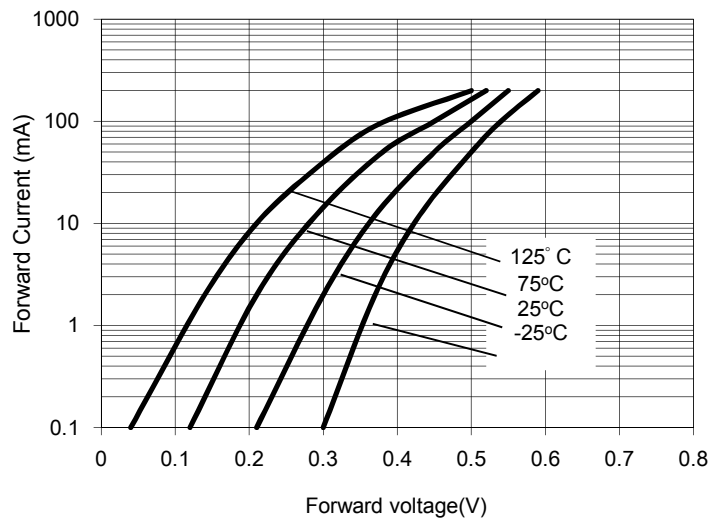


Fig. 2 Reverse Characteristics

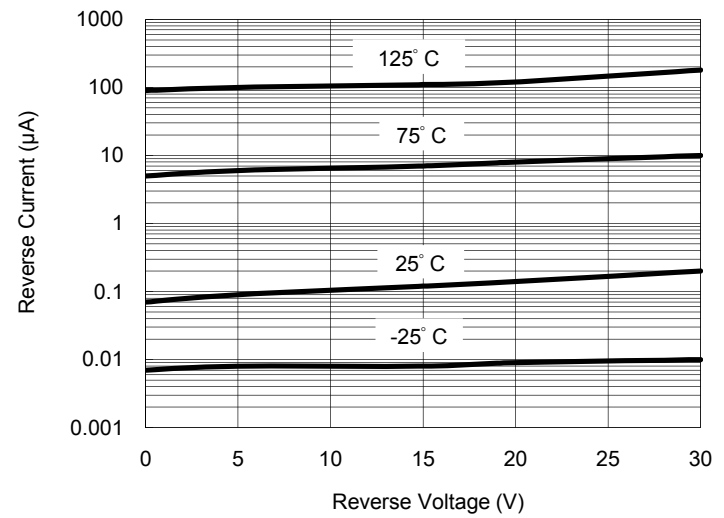


Fig. 3 Capacitance Between Terminals Characteristics

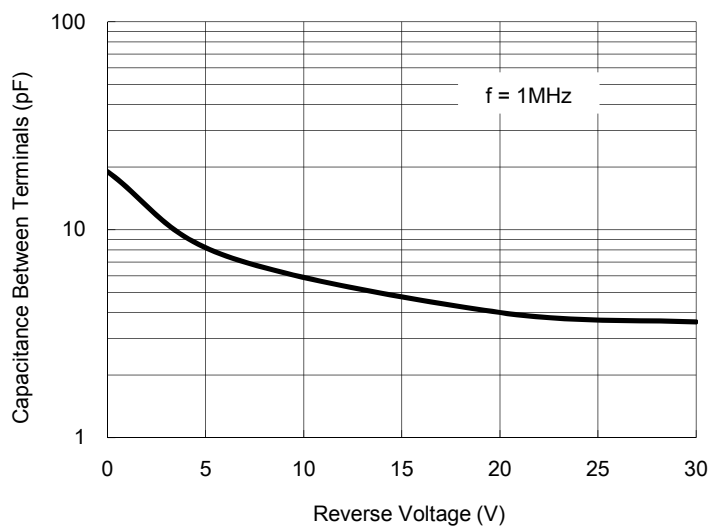


Fig. 4 Chrrnt Derating Curve

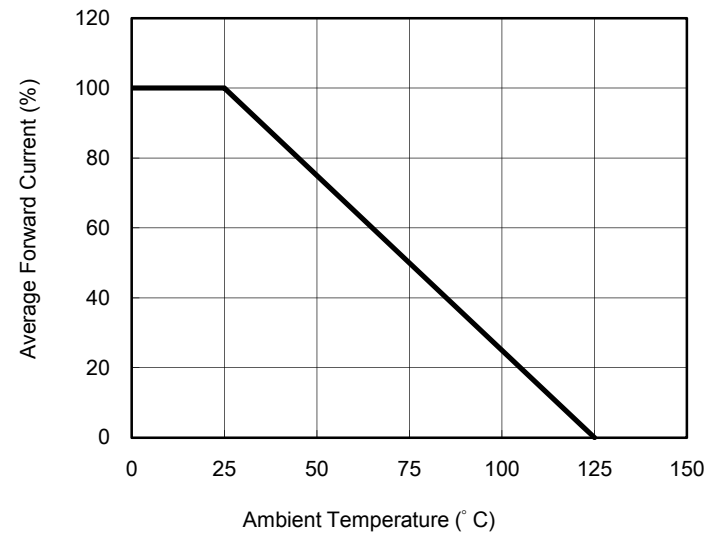


Fig. 5 VF Dispersion

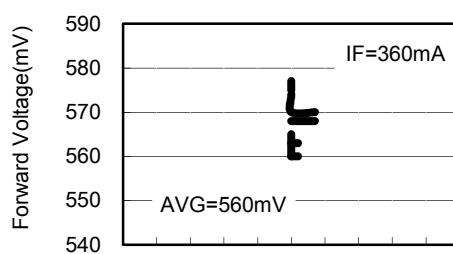


Fig. 6 IR Dispersion Map

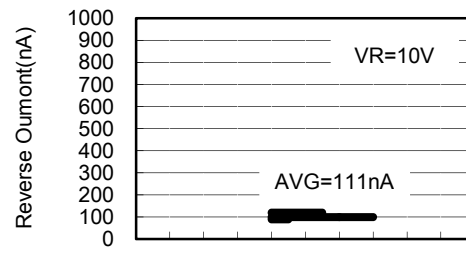
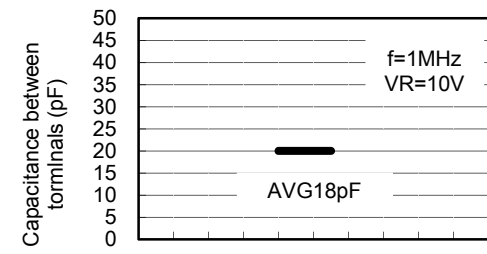


Fig. 7 CT Dispersion Map



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### ORDERING INFORMATION

| PART NO. | PART NO.<br>SUFFIX (Note 1) | PACKING CODE | PACKING CODE<br>SUFFIX | PACKAGE | PACKING      |
|----------|-----------------------------|--------------|------------------------|---------|--------------|
| TSS0230U | -xx                         | RZ           | G                      | 0603    | 5K / 7" Reel |

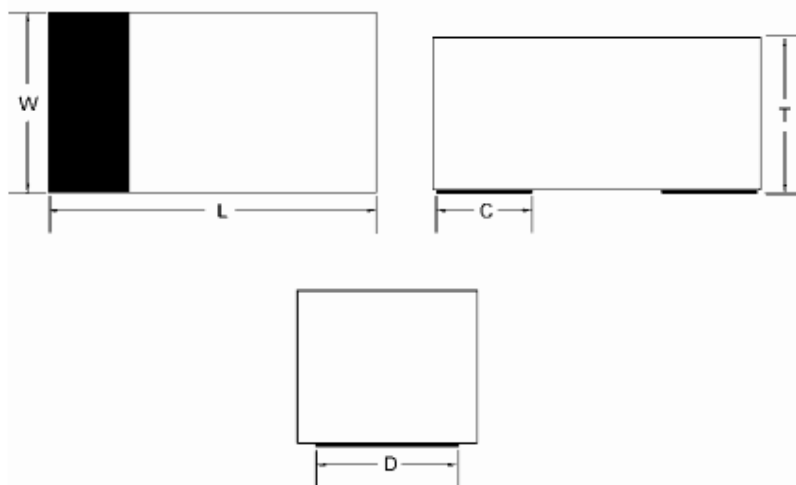
Note 1: Part No. Suffix „-xx “ would be used for special requirement

### EXAMPLE

| PREFERRED P/N   | PART NO. | PART NO.<br>SUFFIX | PACKING CODE | PACKING CODE<br>SUFFIX | DESCRIPTION                                      |
|-----------------|----------|--------------------|--------------|------------------------|--------------------------------------------------|
| TSS0230U RZG    | TSS0230U |                    | RZ           | G                      | Multiple manufacture<br>source<br>Green compound |
| TSS0230U-F0 RZG | TSS0230U | -F0                | RZ           | G                      | Define manufacture<br>source<br>Green compound   |

### PACKAGE OUTLINE DIMENSION

0603



| DIM. | Unit (mm) |      |      | Unit (inch) |       |       |
|------|-----------|------|------|-------------|-------|-------|
|      | Min       | Typ. | Max  | Min         | Typ.  | Max   |
| L    | 1.60      | -    | 1.80 | 0.063       | -     | 0.071 |
| W    | 0.80      | -    | 1.00 | 0.031       | -     | 0.039 |
| T    | 0.70      | -    | 0.85 | 0.028       | -     | 0.033 |
| C    | -         | 0.45 | -    | -           | 0.018 | -     |
| D    | -         | 0.70 | -    | -           | 0.028 | -     |

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