

Small Signal Product

## Surface Mount Schottky Barrier

### FEATURES

- Designed for mounting on small surface
- Extremely thin/leadless package
- Low capacitance
- Low forward voltage drop
- Compliant to RoHS Directive 2011/65/EU and in accordance to WEEE 2002/96/EC
- Halogen-free according to IEC 61249-2-21


**0603**


### MECHANICAL DATA

- Case: 0603
- Terminal: Gold plated, solderable per MIL-STD-750, method 2026
- Polarity: Indicated by cathode band
- Weight: 3 mg (approximately)
- Marking code: BC

<b>MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS</b> ( $T_A=25^\circ\text{C}$ unless otherwise noted)			
<b>PARAMETER</b>	<b>SYMBOL</b>	<b>VALUE</b>	<b>UNIT</b>
Repetitive Peak Reverse Voltage	$V_{RRM}$	40	V
DC Reverse Voltage	$V_R$	40	V
RMS Reverse Voltage	$V_{R(RMS)}$	28	V
Average Forward Current	$I_O$	200	mA
Peak Forward Surge Current 8.3ms Single Half Sine-Wave Superimposed on Rate Load	$I_{FSM}$	600	mA
Power Dissipation	$P_d$	150	mW
Forward Voltage	$V_F$	$I_F = 1.0 \text{ mA}$	0.38
		$I_F = 40 \text{ mA}$	1.0
Reverse Leakage Current	$I_R$	$V_R = 30 \text{ V}$	0.2
Typical Capacitance Between Terminals $V_R = 0 \text{ V}$ , $f = 1.0 \text{ MHz}$ Reverse Voltage	$C_J$	5	pF
Reverse Recovery Time ( $I_F = I_R = 10 \text{ mA}$ , $I_{RR} = 0.1 \times I_R$ , $R_L = 100 \Omega$ )	$t_{rr}$	5	ns
Junction Temperature	$T_J$	-65 to +125	$^\circ\text{C}$
Storage Temperature	$T_{STG}$	-65 to +125	$^\circ\text{C}$

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**RATINGS AND CHARACTERISTICS CURVES**

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

Fig. 1 Forward Characteristics

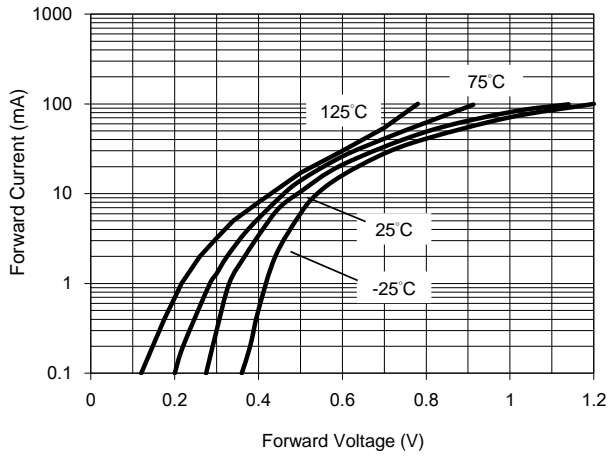


Fig. 2 Reverse Characteristics

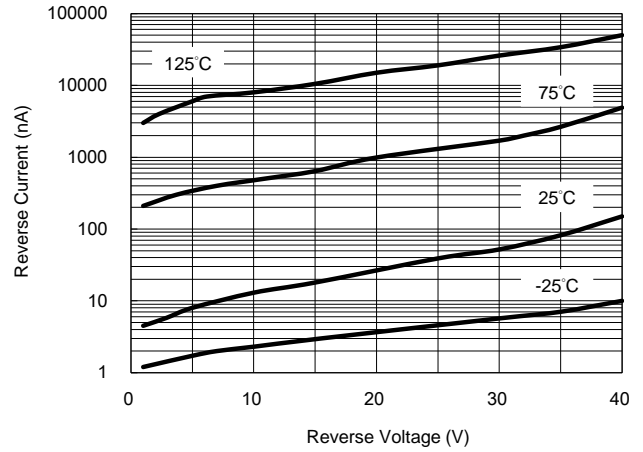
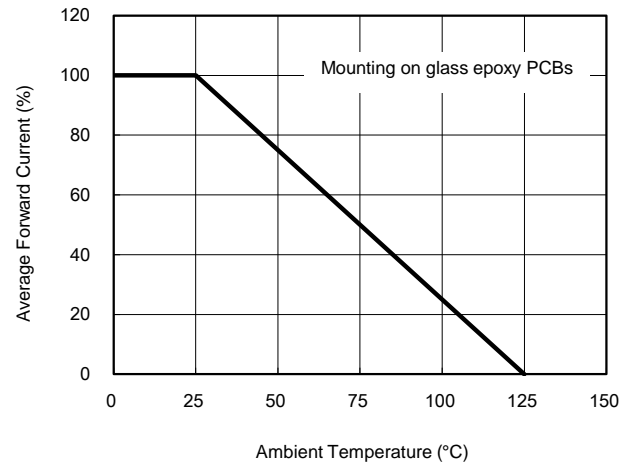
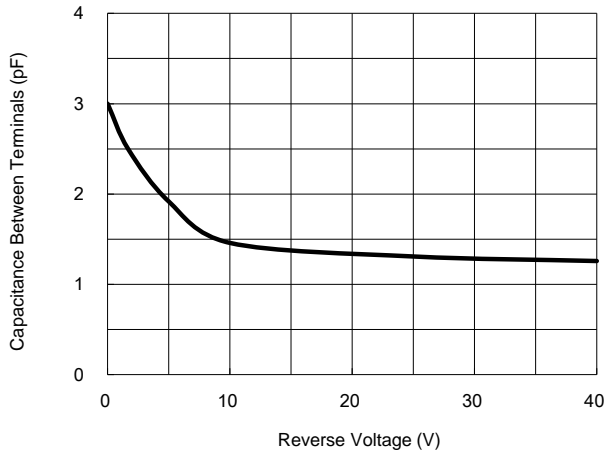


Fig. 3 Capacitance Between Terminals Characteristics



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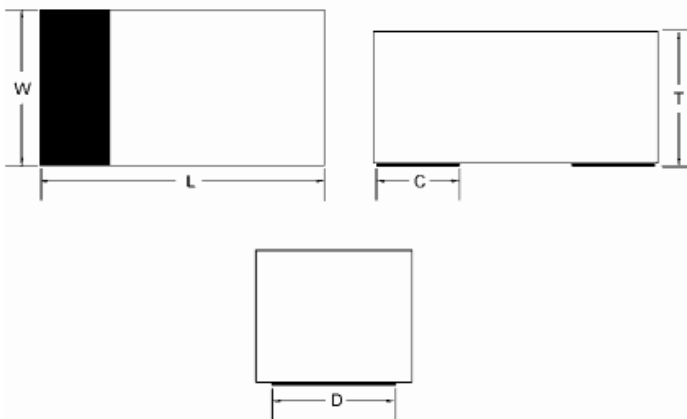
<b>ORDERING INFORMATION</b>				
<b>PART NO.</b>	<b>PACKING CODE</b>	<b>PACKING CODE SUFFIX</b>	<b>PACKAGE</b>	<b>PACKING</b>
TSS40U	RG	G	0603	4K / 7" Reel

Note: Whole series with green compound

<b>EXAMPLE</b>				
<b>EXAMPLE PART NO.</b>	<b>PART NO.</b>	<b>PACKING CODE</b>	<b>PACKING CODE SUFFIX</b>	<b>DESCRIPTION</b>
TSS40U RGG	TSS40U	RG	G	Green compound

**PACKAGE OUTLINE DIMENSION**

0603



<b>DIM.</b>	<b>Unit (mm)</b>			<b>Unit (inch)</b>		
	<b>Min</b>	<b>Typ.</b>	<b>Max</b>	<b>Min</b>	<b>Typ.</b>	<b>Max</b>
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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