

## 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
- Terminal: Gold plated, solderable per MIL-STD-750, method 2026
- Polarity : Indicated by cathode band
- Weight : 0.003 g (approximately)
- Marking code: BF



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>	30	V
DC Reverse Voltage		V <sub>R</sub>	30	V
RMS Reverse Voltage		V <sub>R(RMS)</sub>	21	V
Average Forward Current		I <sub>O</sub>	200	mA
Repetitive Peak Forward Current		I <sub>FRM</sub>	300	mA
Peak Forward Surge Current 8.3ms Single Half Sine-Wave Superimposed on Rate Load		I <sub>FSM</sub>	600	mA
Power Dissipation		P <sub>d</sub>	150	mW
Forward Voltage	I <sub>F</sub> = 0.1 mA	V <sub>F</sub>	0.24	V
	I <sub>F</sub> = 1 mA		0.32	
	I <sub>F</sub> = 10 mA		0.40	
	I <sub>F</sub> = 30 mA		0.50	
	I <sub>F</sub> = 100 mA		1.00	
Reverse Leakage Current	V <sub>R</sub> = 25 V	I <sub>R</sub>	2	μA
Typical Capacitance Between Terminals V <sub>R</sub> = 1 V , f = 1.0 MHz Reverse Voltage		C <sub>J</sub>	10	pF
Reverse Recovery Time ( 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

## Small Signal Product

### RATINGS AND CHARACTERISTICS CURVES

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

Fig.1 Forward Characteristics

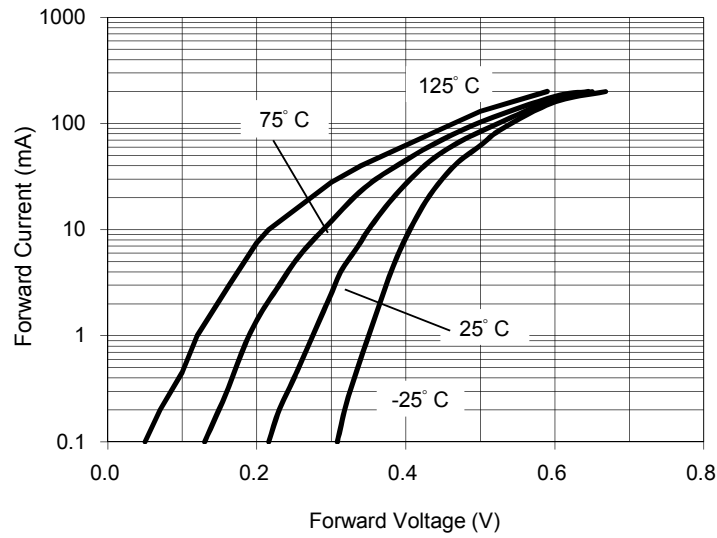


Fig. 2 Reverse Characteristics

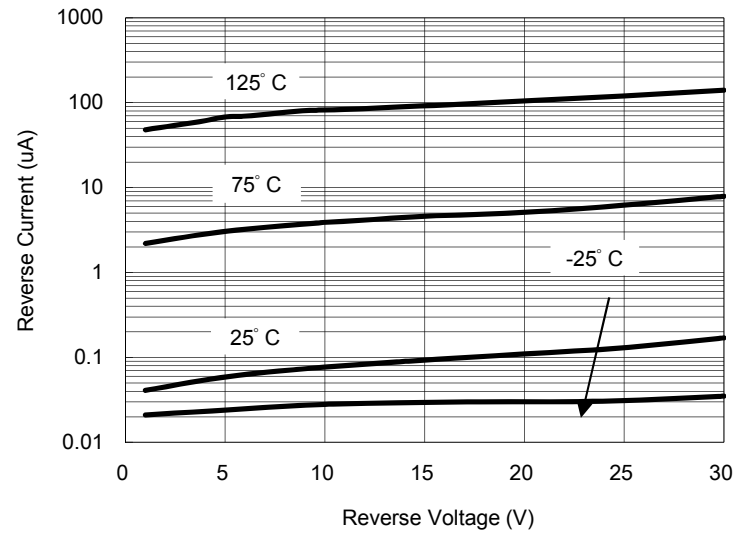


Fig. 3 Capacitance Between Terminals Characteristics

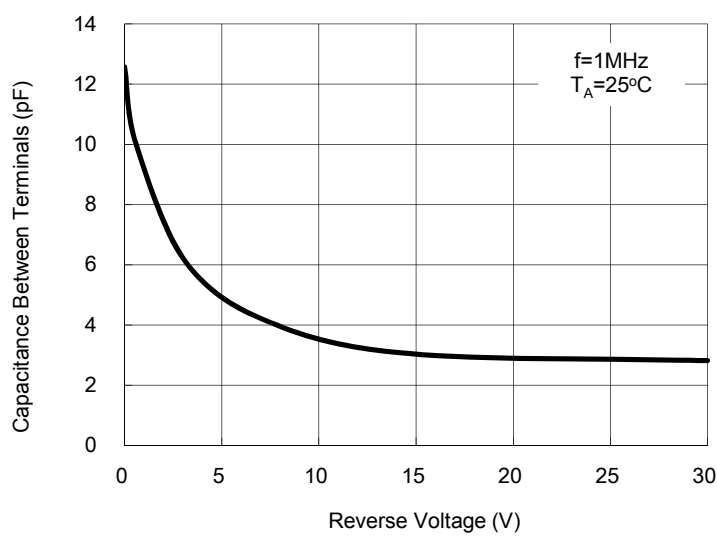
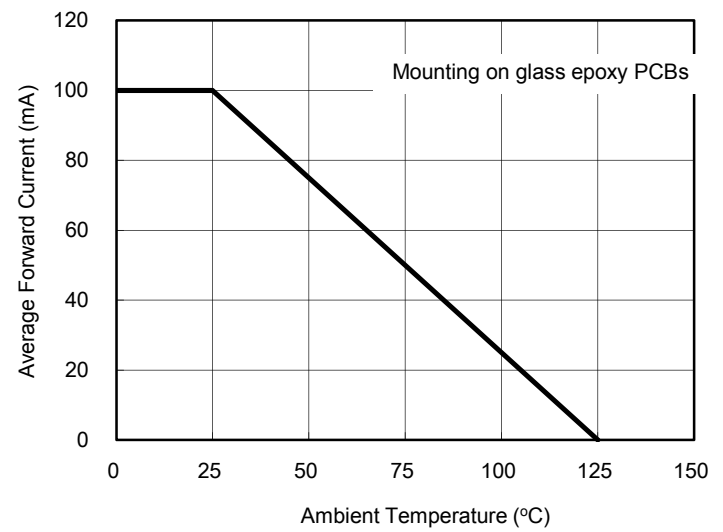


Fig. 4 Current Derating Curve



## Small Signal Product

### ORDERING INFORMATION

PART NO.	PART NO. SUFFIX	PACKING CODE	PACKING CODE SUFFIX	PACKAGE	PACKING
TSS54U	-xx (Note 1)	RZ	G	0603	5K / 7" Reel

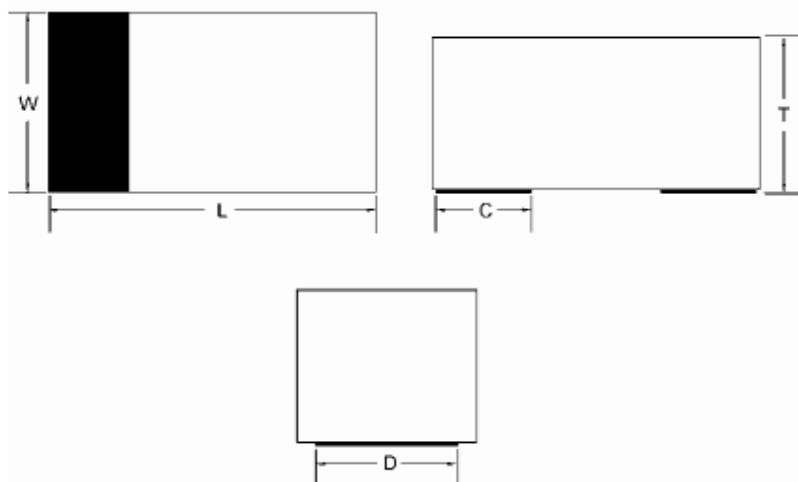
Note 1: Part No. Suffix „-xx “ would be used for special requirement

### EXAMPLE

PREFERRED PART NO.	PART NO.	PART NO. SUFFIX	PACKING CODE	PACKING CODE SUFFIX	DESCRIPTION
TSS54U RZG	TSS54U		RZ	G	Multiple manufacture source Green compound
TSS54U-F0 RZG	TSS54U	-F0	RZ	G	Defined manufacture source 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	-

### Notice

Specifications of the products displayed herein are subject to change without notice. TSC or anyone on its behalf, assumes no responsibility or liability for any errors or inaccuracies.

Information contained herein is intended to provide a product description only. No license, express or implied, to any intellectual property rights is granted by this document. Except as provided in TSC's terms and conditions of sale for such products, TSC assumes no liability whatsoever, and disclaims any express or implied warranty, relating to sale and/or use of TSC products including liability or warranties relating to fitness for a particular purpose, merchantability, or infringement of any patent, copyright, or other intellectual property right.

The products shown herein are not designed for use in medical, life-saving, or life-sustaining applications. Customers using or selling these products for use in such applications do so at their own risk and agree to fully indemnify TSC for any damages resulting from such improper use or sale.