

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: TSS42U: BD
TSS43U: BE



MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS (T _A =25°C unless otherwise noted)				
PARAMETER		SYMBOL	VALUE	UNIT
Repetitive Peak Reverse Voltage		V _{RRM}	30	V
Reverse Voltage		V _R	30	V
RMS Reverse Voltage		V _{R(RMS)}	21	V
Average Forward Current		I _O	200	mA
Repetitive Peak Forward Current		I _{FRM}	500	mA
Non-Repetitive Peak Forward Surge Current Pulse Width = 8.3 ms (Single Half-Wave)		I _{FSM}	4.0	A
Power Dissipation		P _D	150	mW
Forward Voltage	TSS42U/43U I _F = 200 mA	V _F	1.00	V
	TSS42U I _F = 10 mA		0.40	
	TSS42U I _F = 50 mA		0.65	
	TSS43U I _F = 2 mA		0.33	
	TSS43U I _F = 15 mA		0.45	
Reverse Leakage Current	V _R = 25 V	I _R	0.5	μA
Typical Capacitance Between Terminals (V _R =1V, f=1.0MHz)		C _J	10	pF
Reverse Recovery Time (Note 1)		t _{rr}	5	ns
Thermal Resistance (Junction to Ambient)		R _{θJA}	667	°C/W
Operation Junction Temperature Range		T _J	-55 to +125	°C
Storage Temperature Range		T _{STG}	-55 to +125	°C

Note 1: Test conditions : I_F = I_R = 10 mA, I_{rr} = 0.1 × I_R, R_L = 100 Ω

RATINGS AND CHARACTERISTICS CURVES

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

Fig.1 Forward Characteristics

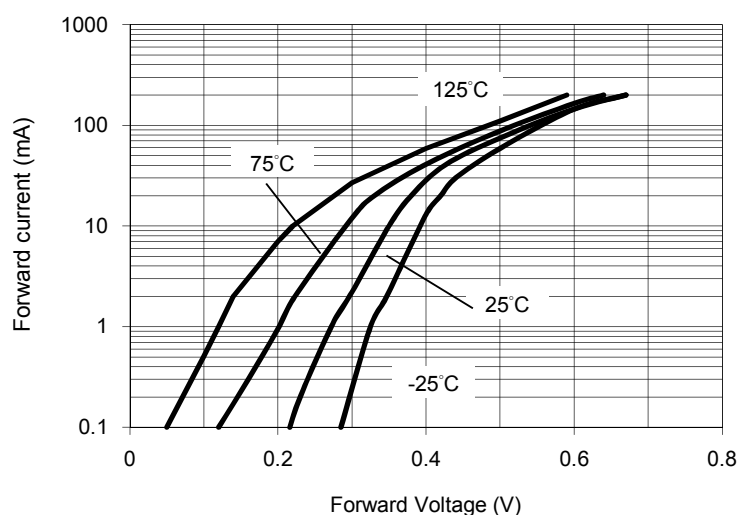


Fig. 2 Reverse Characteristics

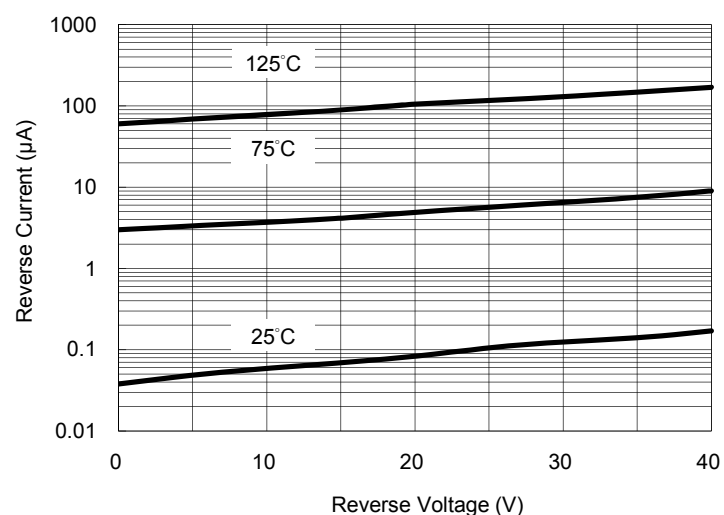


Fig. 3 Capacitance Between Terminals Characteristics

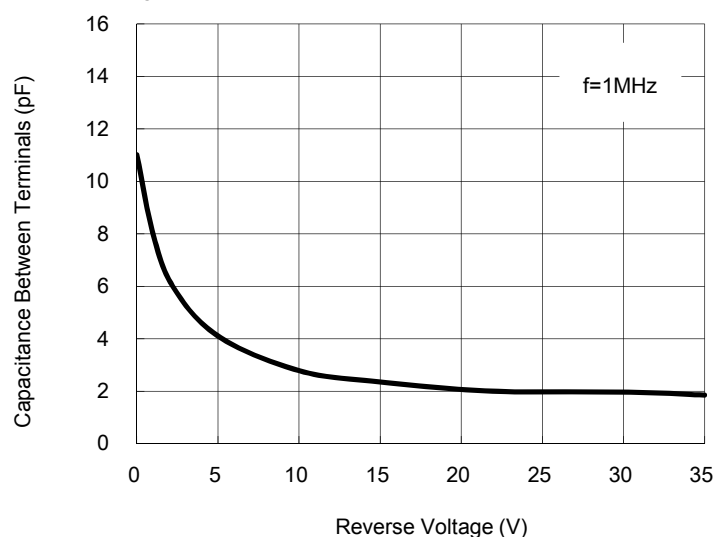
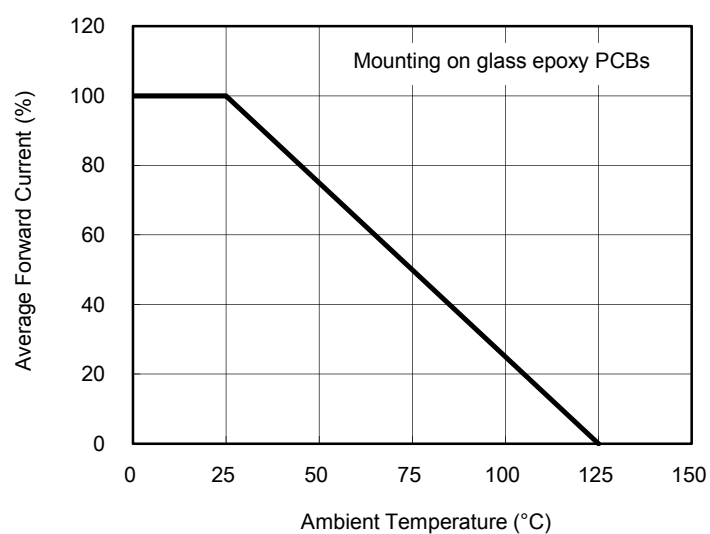


Fig. 4 Current Derating Curve



Small Signal Product

ORDERING INFORMATION

PART NO.	PART NO. SUFFIX	PACKING CODE	PACKING CODE SUFFIX	PACKAGE	PACKING
TSS4xU (Note 1)	-xx (Note 2)	RZ	G	0603	5K / 7" Reel

Note 1: "x" is Device Code from "2" thru "3".

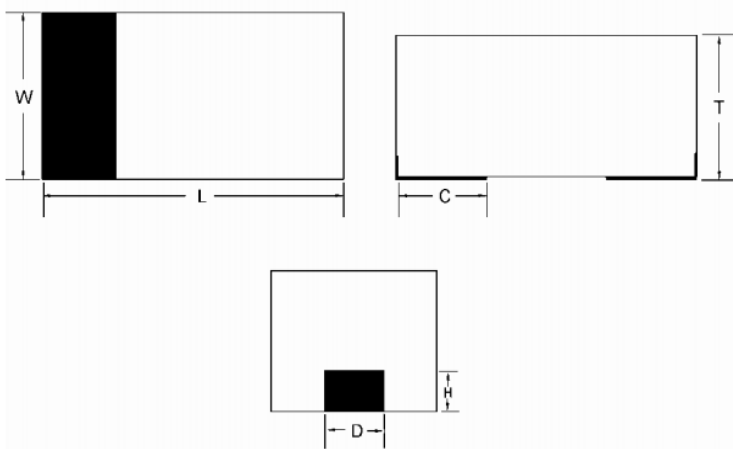
Note 2: Part No. Suffix „-xx “ would be used for special requirement

EXAMPLE

PREFERRED PART NO.	PART NO.	PART NO. SUFFIX	PACKING CODE	PACKING CODE SUFFIX	DESCRIPTION
TSS42U RZG	TSS42U		RZ	G	Multiple manufacture source Green compound
TSS42U-F0 RZG	TSS42U	-F0	RZ	G	Define 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	-	0.35	-	-	0.014	-
D	-	0.45	-	-	0.018	-
H	-	0.30	-	-	0.012	-

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.