

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	V _F	TSS42U/43U I _F = 200 mA	1.00
		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	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

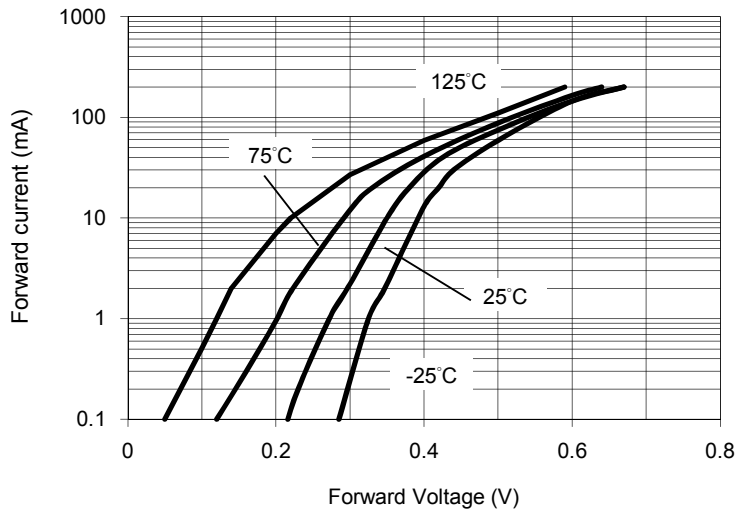


Fig. 2 Reverse Characteristics

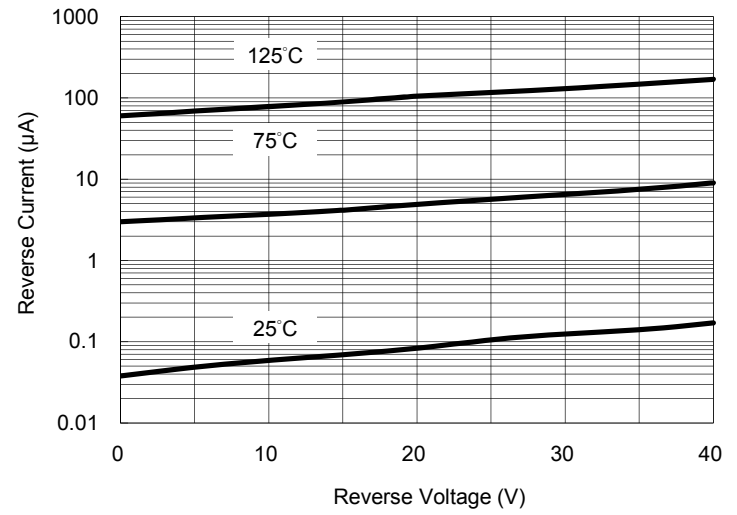


Fig. 3 Capacitance Between Terminals Characteristics

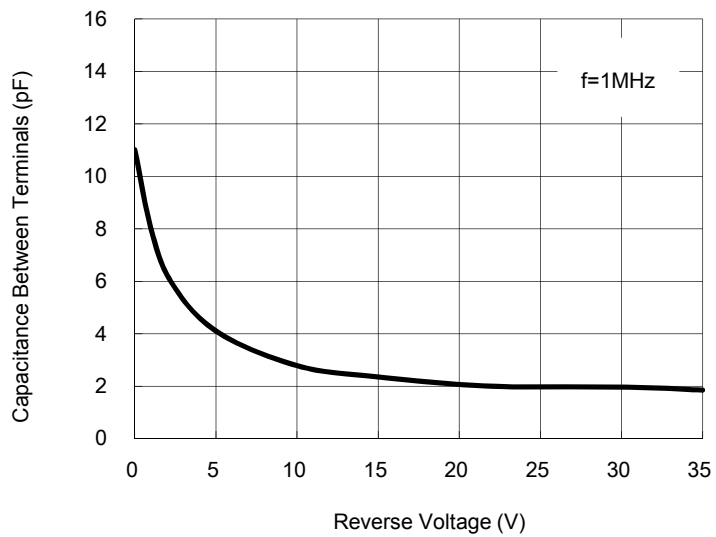
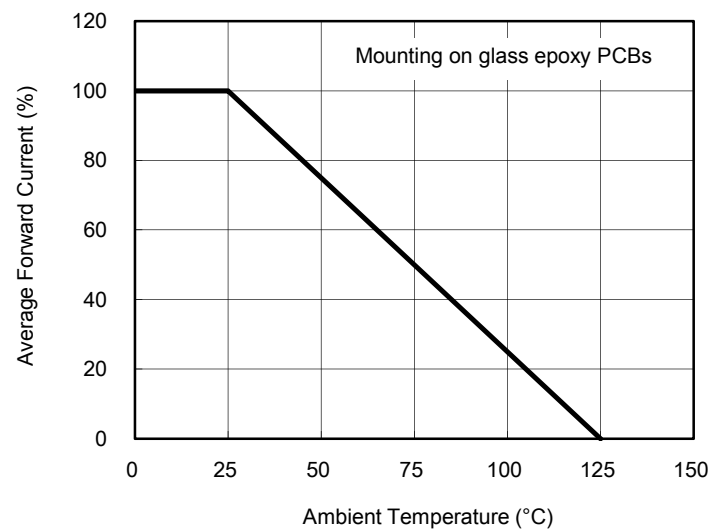


Fig. 4 Current Derating Curve



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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

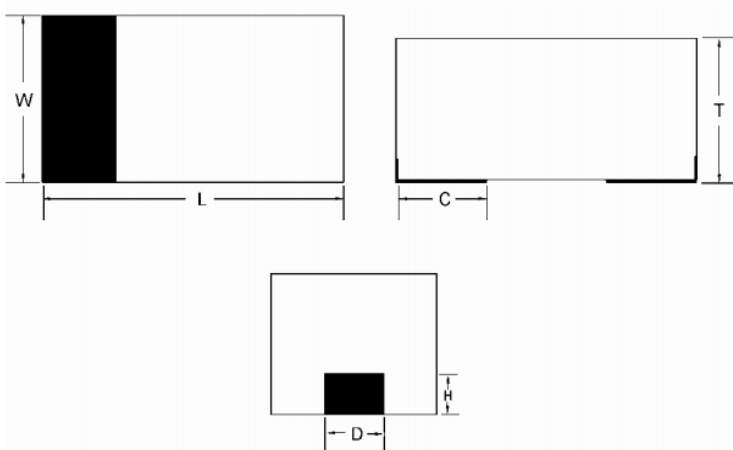
Note 1: "x" is Device Code from "2" thru "3".

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	-

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