

- 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<sub>A</sub>=25°C unless otherwise noted)

PARAMETER	SYMBOL	VALUE
Repetitive Peak Reverse Voltage	V <sub>RRM</sub>	30
Reverse Voltage	V <sub>R</sub>	30
RMS Reverse Voltage	V <sub>R(RMS)</sub>	21
Average Forward Current	I <sub>O</sub>	200
Repetitive Peak Forward Current	I <sub>FRM</sub>	500
Non-Repetitive Peak Forward Surge Current Pulse Width = 8.3 ms (Single Half-Wave)	I <sub>FSM</sub>	4.0
Power Dissipation	P <sub>D</sub>	150
Forward Voltage		
TSS42U/43U   I <sub>F</sub> = 200 mA		1.00
TSS42U       I <sub>F</sub> = 10 mA		0.40
TSS42U       I <sub>F</sub> = 50 mA	V <sub>F</sub>	0.65
TSS43U       I <sub>F</sub> = 2 mA		0.33
TSS43U       I <sub>F</sub> = 15 mA		0.45
Reverse Leakage Current   V <sub>R</sub> = 25 V	I <sub>R</sub>	0.5
Typical Capacitance Between Terminals ( V <sub>R</sub> =1V, f=1.0MHz )	C <sub>J</sub>	10
Reverse Recovery Time       (Note 1)	t <sub>rr</sub>	5
Thermal Resistance         (Junction to Ambient)	R <sub>θJA</sub>	667
Operation Junction Temperature Range	T <sub>J</sub>	-55 to +125
Storage Temperature Range	T <sub>STG</sub>	-55 to +125

Note 1: Test conditions : I<sub>F</sub> = I<sub>R</sub> = 10 mA, I<sub>rr</sub> = 0.1 × I<sub>R</sub>, R<sub>L</sub> = 100 Ω

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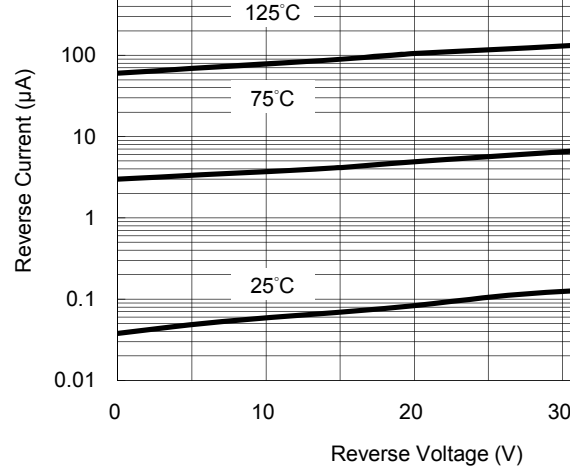
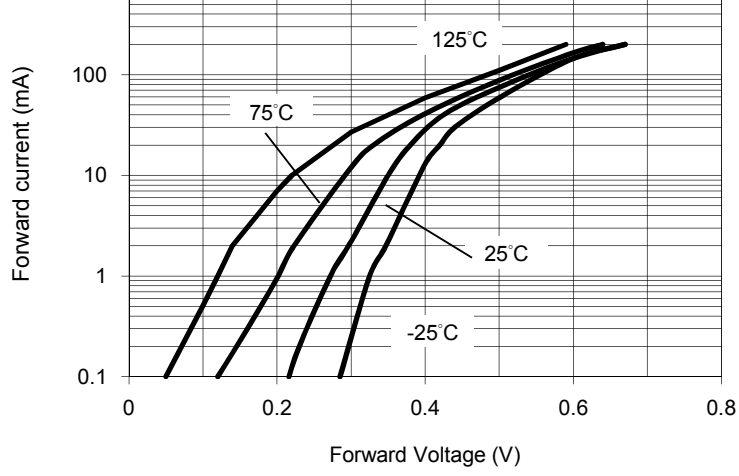


Fig. 3 Capacitance Between Terminals Characteristics

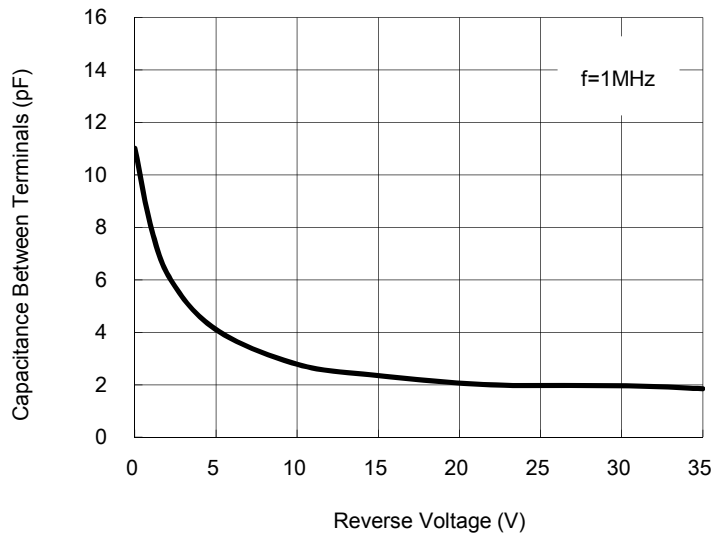
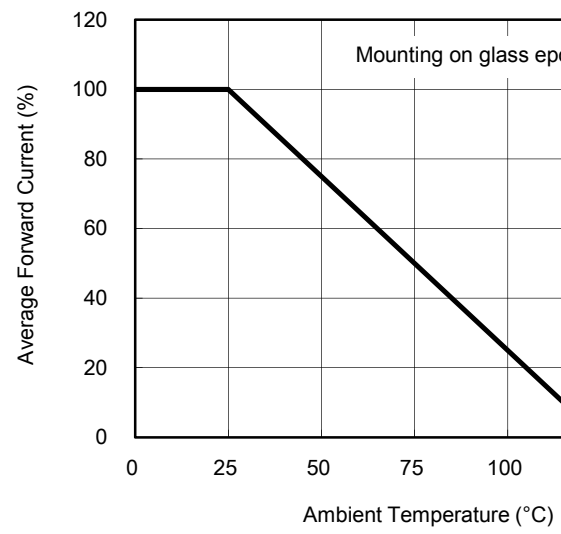


Fig. 4 Current Derating Curve



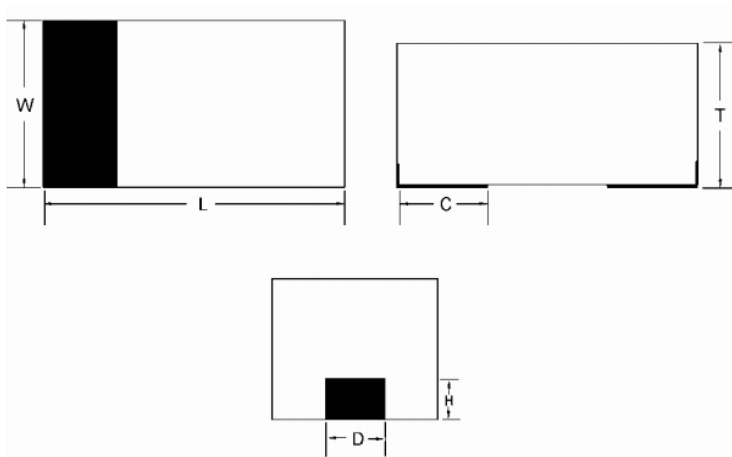
Note 1: "x" is Device Code from "2" thru "3".

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	DE
TSS42U RZG	TSS42U		RZ	G	Multip Gre
TSS42U-F0 RZG	TSS42U	-F0	RZ	G	Defin Gre

PACKAGE OUTLINE DIMENSION

**0603**



DIM.	Unit (mm)			Unit	
	Min	Typ	Max	Min	Ty
L	1.60	-	1.80	0.063	-
W	0.80	-	1.00	0.031	-
T	0.70	-	0.85	0.028	-
C	-	0.35	-	-	0.0
D	-	0.45	-	-	0.0
H	-	0.30	-	-	0.0

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