

**0.2 Amp Surface Mount Schottky Barrier Diode**
**Small Signal Diode**

**Features**

- ◇ Designed for mounting on small surface
- ◇ Extremely thin / leadless package
- ◇ Low capacitance
- ◇ Low forward voltage drop
- ◇ Pb free version and RoHS compliant
- ◇ Green compound (Halogen free) with suffix "G" on packing code and prefix "G" on date code

**Mechanical Data**

- ◇ Case : 0603 Standard package, molded plastic
- ◇ Terminals: Gold plated, solderable per MIL-STD-750, Method 2026.
- ◇ High temperature soldering guaranteed: 260°C/10s
- ◇ Polarity : Indicated by cathode band
- ◇ Weight : 0.003 gram (approx.)

**Ordering Information**

Part No.	Package	Packing	Marking	Packing code
TSS42U	0603	4K / 7" Reel	BD	RZ / RZG
TSS43U	0603	4K / 7" Reel	BE	RZ / RZG

**Maximum Ratings and Electrical Characteristics**

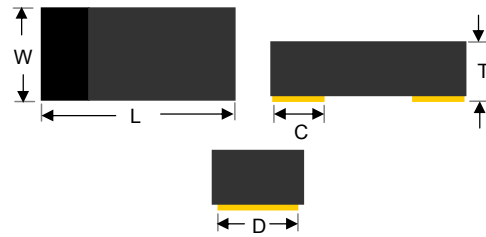
Rating at 25°C ambient temperature unless otherwise specified.

**Maximum Ratings**

Type Number	Symbol	Value	Units
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 ( Singal Half -wave )	$I_{FSM}$	4.0	A
Power Dissipation	$P_D$	150	mW
Forward Voltage TS42U / 43U, $I_F = 200mA$	$V_F$	1.00	V
TS42U, $I_F = 10mA$		0.40	
TS42U, $I_F = 50mA$		0.65	
TS43U, $I_F = 2mA$		0.33	
TS43U, $I_F = 15mA$		0.45	
Reverse Leakage Current $V_R = 25V$	$I_R$	0.5	uA
Typical Capacitance between terminals ( $V_R = 1V, f = 1.0MHZ$ )	$C_J$	10	pF
Reverse Recovery Time (Note 2.)	$T_{rr}$	5	nS
Thermal Resistance (Junction to Ambient)	$R_{\theta JA}$	667	°C/W
Operation Junction Temperature	$T_J$	125	°C
Storage Temperature Range	$T_J, T_{STG}$	-55 to + 125	°C

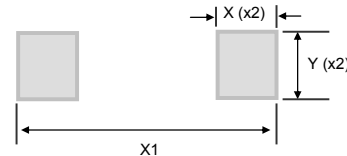
Notes: 1. The suggested Footprint dimensions have been provided for reference only, as actual pad layout may vary depending on application.

2. Test conditions:  $I_F = I_R = 10mA, I_{rr} = 0.1 \times I_R, R_L = 100 \Omega$

**0603**


Dimensions	Unit (mm)		Unit (inch)	
	Min	Max	Min	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 (Typical)		0.018 (Typical)	
D	0.7 (Typical)		0.27 (Typical)	

**Pin Configuration**

**Suggested Footprint Dimensions**


Dimensions	Value (in mm)
X1	2.70
Y	0.80
X	1.37

RATINGS AND CHARACTERISTIC CURVES (TSS42U/TSS43U)

Fig. 1 - Forward characteristics

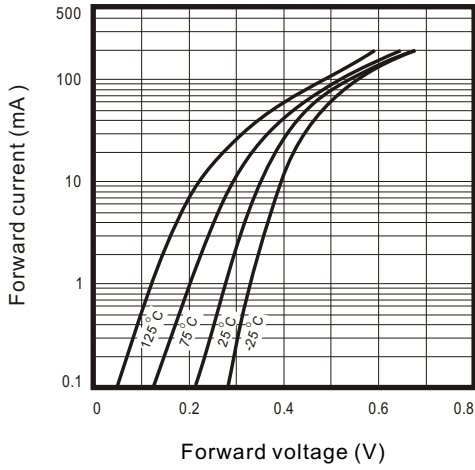


Fig. 2 - Reverse characteristics

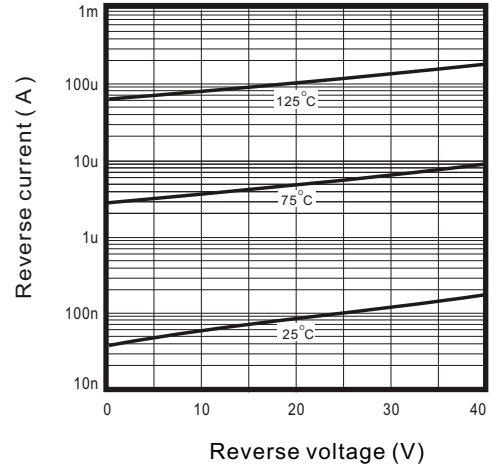


Fig.3 - Capacitance between terminals characteristics

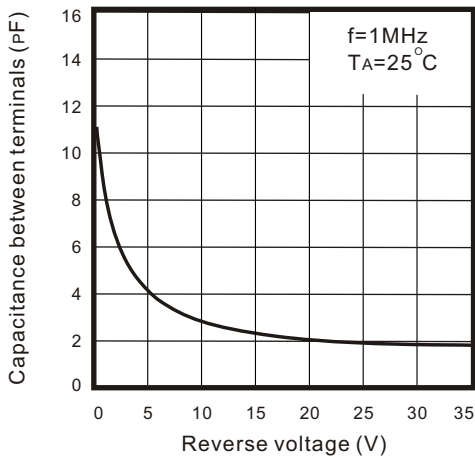


Fig.4 - Current derating curve

