TAIWAN SEMICONDUCTOR

Pb **RoHS** COMPLIANCE

TSS54U

0.2Amp Surface Mount Schottky Barrier Diode

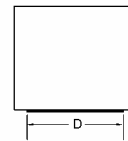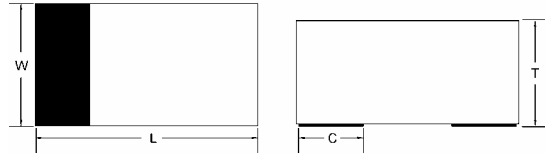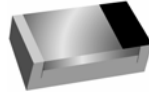**0603**

Features

✧ Designed for mounting on small surface
✧ Extremely thin/leadless package
✧ Low capacitance
✧ Low forward voltage drop
✧ High temperature soldering:
  260°C/10 seconds at terminals
✧ Chip version in 0603

Mechanical Data

✧ Case: 0603 Standard package, molded plastic
✧ Terminals: Gold plated, solderable per MIL-STD-750, method 2026.
✧ Polarity: Indicated by cathode band
✧ Mounting position: Any
✧ Package code: RZ
✧ Weight: 0.003 gram (approximately)

ITEM	0603
L	0.071(1.80) 0.063(1.60)
W	0.039(1.00) 0.031(0.80)
T	0.033(0.85) 0.027(0.70)
C	0.018(0.45) Typical
D	0.028(0.70) Typical

Dimensions in inches and (millimeters)

Maximum Ratings and Electrical characteristics

Rating at 25 $^{\circ}$C ambient temperature unless otherwise specified.
Single phase, half wave, 60 Hz, resistive or inductive load.
For capacitive load, derate current by 20%

Type Number		Symbol	0603	Units
Repetitive Peak Reverse Voltage		V_{RRM}	30	V
DC Reverse Voltage		V_R	30	V
RMS Reverse Voltage		$V_{R(RMS)}$	21	V
Average Forward Current		I_O	200	mA
Repetiitive Peak Forward Current		I_{FRM}	300	mA
Peak Forward Surge Current 8.3ms single half sine-wave superimposed on rate load (JEDEC method)		I_{FSM}	600	mA
Power Dissipation		Pd	150	mW
Forward Voltage	IF=0.1mA IF=1mA IF=10mA IF=30mA IF=100mA	V_F	0.24 0.32 0.4 0.5 1.0	V
Reverse Leakage Current	VR=25V	I_R	2	uA
Typical capacitance between terminals VR=1V, f =1.0MHz reverse voltage		C_J	10	pF
Reverse Recovery Time (IF=IR=10mA, Irr=0.1 x IR, RL=100Ω)		Trr	5	nS
Junction Temperature		T_J	-65 to + 125	$^{\circ}$C
Storage Temperature		T_{STG}	-65 to + 125	$^{\circ}$C

Version: A07

RATINGS AND CHARACTERISTIC CURVES(TSS54U)
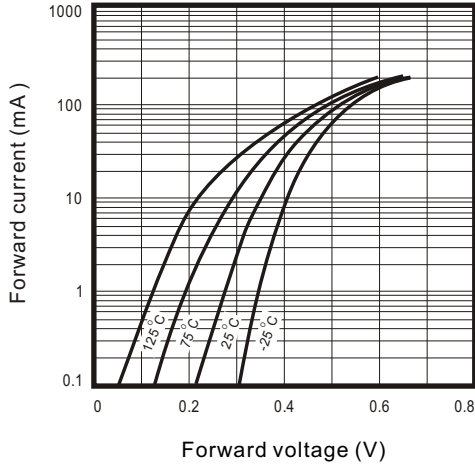
Fig. 1 - Forward characteristics
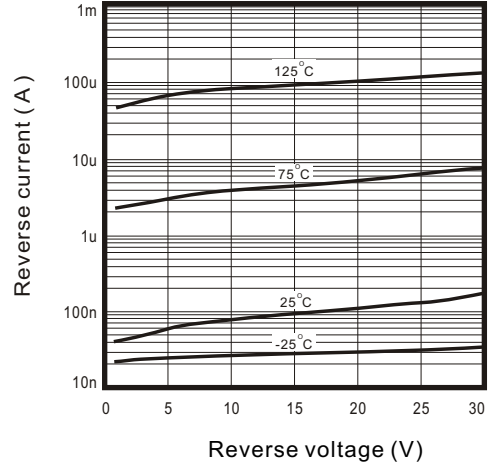

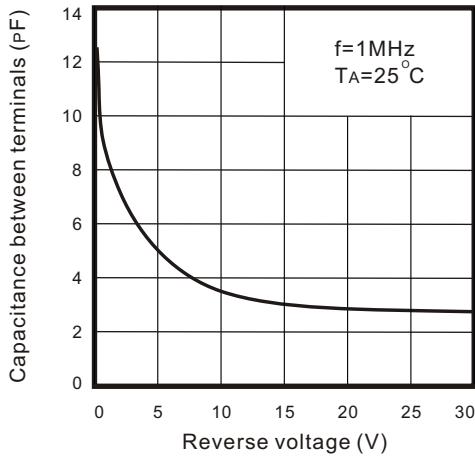
Fig. 2 - Reverse characteristics

Fig.3 - Capacitance between terminals characteristics

Fig.4 - Current derating curve

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