

## 200mA, 35V Schottky Barrier Diode

### FEATURES

- Designed for mounting on small surface
- Low Capacitance
- Low forward voltage drop
- Compliant to RoHS directive 2011/65/EU and in accordance to WEEE 2002/96/EC
- Halogen-free according to IEC 61249-2-21

### APPLICATIONS

- Adapters
- For switching power supply
- Low stored charge
- Inverter

### MECHANICAL DATA

- Case:0603
- Molding compound meets UL 94 V-0 flammability rating
- Moisture sensitivity level: level 1, per J-STD-020
- Packing code with suffix "G" means green compound (halogen-free)
- Terminal: Matte Au plated leads, solderable per J-STD-002
- Meet JESD 201 class 1A whisker test
- Polarity: Indicated by cathode band
- Weight: 3 mg (approximately)

KEY PARAMETERS		
PARAMETER	VALUE	UNIT
$I_{F(AV)}$	200	mA
$V_{RRM}$	35	V
$I_{FSM}$	1.0	A
$V_F$ at $I_F=200mA$	0.6	V
$T_{JMAX}$	125	°C
Package	0603	
Configuration	Single dice	



ABSOLUTE MAXIMUM RATINGS ( $T_A = 25^\circ\text{C}$ unless otherwise noted)			
PARAMETER	SYMBOL	TSS0230U	UNIT
Marking code on the device		BB	
Repetitive peak reverse voltage	$V_{RRM}$	35	V
Forward current	$I_{F(AV)}$	200	mA
Peak Forward Surge Current 8.3 ms Single Half Sine-Wave Superimposed on Rate Load	$I_{FSM}$	1	A
Junction temperature range	$T_J$	-40 to +125	°C
Storage temperature range	$T_{STG}$	-40 to +125	°C

<b>ELECTRICAL SPECIFICATIONS</b> ( $T_A = 25^\circ\text{C}$ unless otherwise noted)					
PARAMETER	CONDITIONS	SYMBOL	TYP	MAX	UNIT
Forward voltage per diode <sup>(1)</sup>	$I_F = 200\text{mA}$ , $T_J = 25^\circ\text{C}$	$V_F$	-	0.6	V
Reverse current @ rated $V_R$ per diode <sup>(2)</sup>	$V_R = 10\text{V}$ $T_J = 25^\circ\text{C}$	$I_R$	-	1	$\mu\text{A}$
Junction capacitance	1 MHz, $V_R = 1\text{V}$	$C_J$	-	18	pF

**Notes:**

1. Pulse test with PW=0.3 ms
2. Pulse test with PW=30 ms

<b>ORDERING INFORMATION</b>				
PART NO.	PACKING CODE	PACKING CODE SUFFIX	PACKAGE	PACKING
TSS0230U (Note 1)	RG	G	0603	4K / 7" Reel

**Notes:**

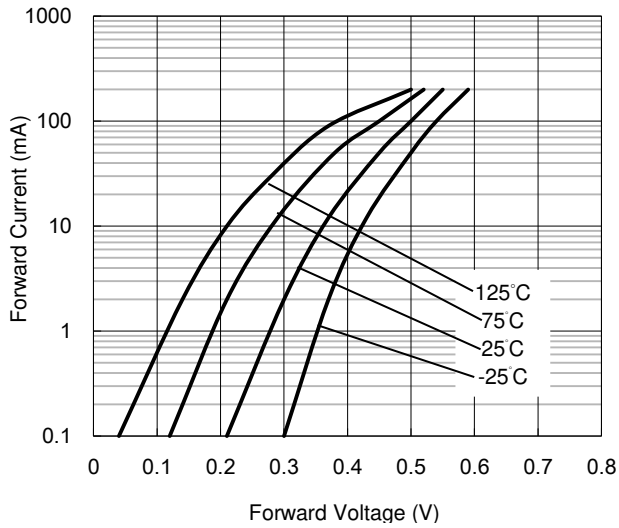
1. Whole series with green compound

<b>EXAMPLE</b>				
EXAMPLE P/N	PART NO.	PACKING CODE	PACKING CODE SUFFIX	DESCRIPTION
TSS0230U RGG	TSS0230U	RG	G	Green compound

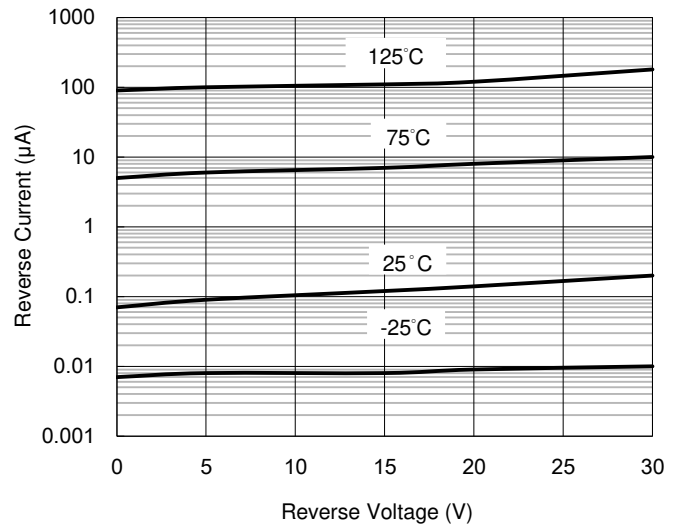
**CHARACTERISTICS CURVES**

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

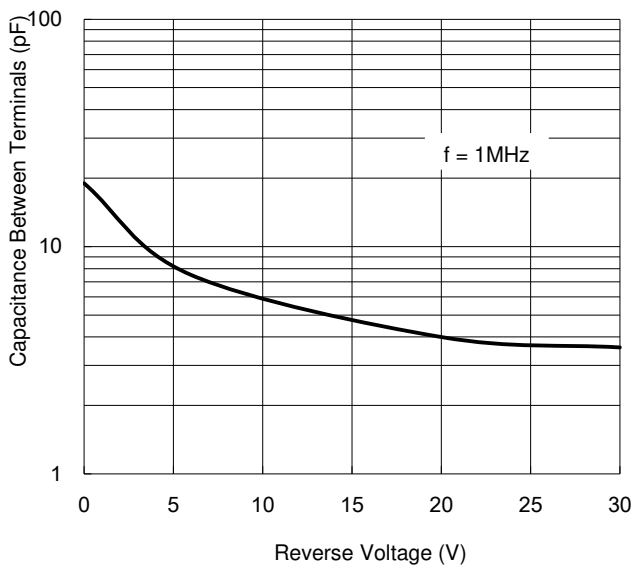
**Fig.1 Forward Characteristics**



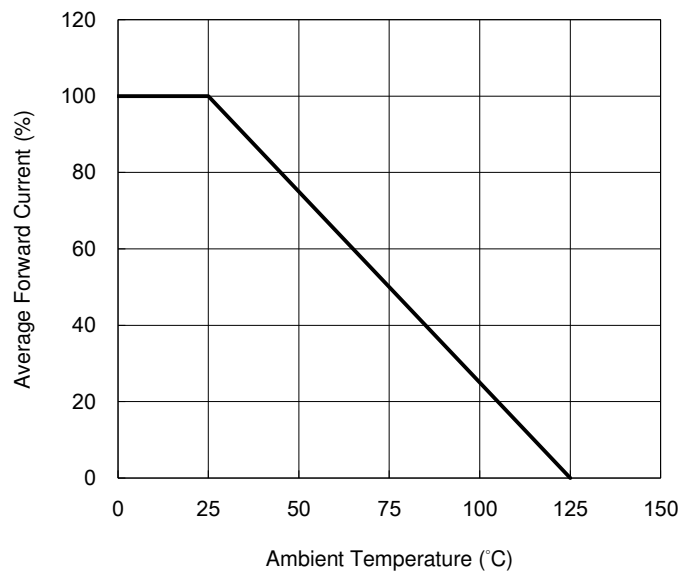
**Fig.2 Reverse characteristics**



**Fig.3 Capacitance between terminals characteristics**



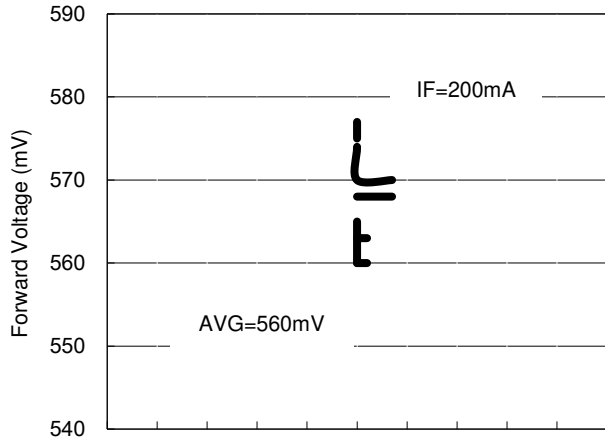
**Fig.4 Current derating curve**



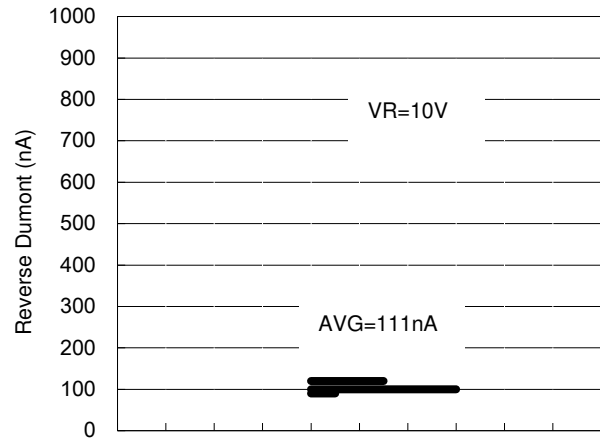
**CHARACTERISTICS CURVES**

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

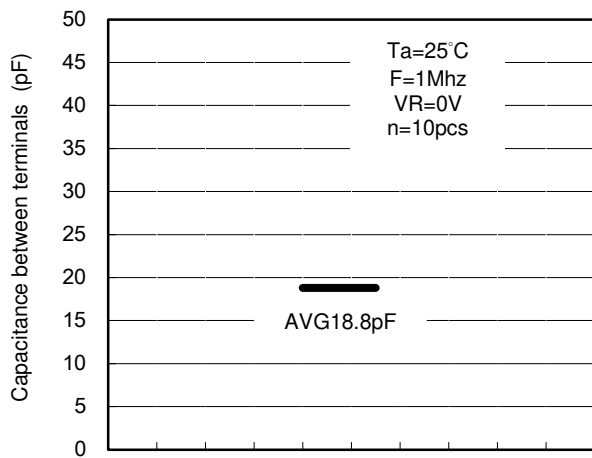
**Fig.5 VF Dispersion Map**



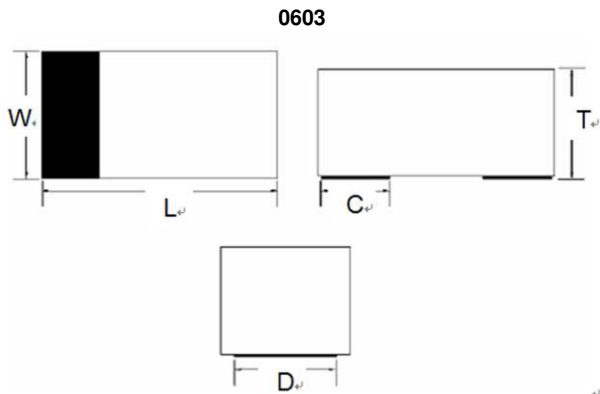
**Fig.6 IR Dispersion Map**



**Fig.7 CT Dispersion Map**



**PACKAGE OUTLINE DIMENSION**



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	-	0.45	-	-	0.018	-
D	-	0.70	-	-	0.028	-

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