

# SS0140Q

## SCHOTTKY BARRIER RECTIFIER

**Voltage**

**30 V**

**Current**

**0.1 A**

### Features

- Low forward voltage drop
- Deal for automated placement
- Low power loss, high efficiency
- High surge current capability
- Lead free in compliance with EU RoHS 2.0
- Green molding compound as per IEC 61249 standard

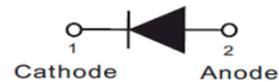
### Mechanical Data

- Case: DFN0603-2L Package
- Terminals: Solderable per MIL-STD-750, Method 2026
- Approx. Weight: 0.00001 ounces, 0.0004 grams

DFN0603-2L



**14x**



### Maximum Ratings and Thermal Characteristics (T<sub>A</sub> = 25 °C unless otherwise noted)

PARAMETER	SYMBOL	LIMIT	UNITS
Peak to Peak Voltage (Duty 1 %, 10 KHz)	V <sub>PK-PK</sub>	40	V
Maximum Recurrent Peak Reverse Voltage	V <sub>RRM</sub>	30	V
Maximum RMS Voltage	V <sub>RMS</sub>	21	V
Maximum DC Blocking Voltage	V <sub>DC</sub>	30	V
Maximum Average Forward Rectified Current	I <sub>F(AV)</sub>	0.1	A
Peak Forward Surge Current: 8.3 ms single half sine-wave superimposed on rated load per diode	I <sub>FSM</sub>	2	A
Typical Junction Capacitance Measured at 1 MHz And Applied V <sub>R</sub> = 4V	C <sub>J</sub>	2	pF
Typical Thermal Resistance per diode	R <sub>θJA</sub> <sup>(1)</sup>	500	°C/W
Operating Junction Temperature Range	T <sub>J</sub>	-55 to +150	°C
Storage Temperature Range	T <sub>STG</sub>	-55 to +150	°C

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

PARAMETER	SYMBOL	TEST CONDITION	MIN.	TYP.	MAX.	UNITS
Instantaneous forward voltage	$V_F$	$I_F = 0.01\text{ A}, T_J = 25\text{ }^\circ\text{C}$	-	0.33	-	V
		$I_F = 0.1\text{ A}, T_J = 25\text{ }^\circ\text{C}$	-	-	0.8	
		$I_F = 0.01\text{ A}, T_J = 125\text{ }^\circ\text{C}$	-	0.22	-	
		$I_F = 0.1\text{ A}, T_J = 125\text{ }^\circ\text{C}$	-	0.71	-	
Reverse current	$I_R^{(2)}$	$V_R = 10\text{ V}, T_J = 25\text{ }^\circ\text{C}$	-	0.5	-	uA
		$V_R = 40\text{ V}, T_J = 25\text{ }^\circ\text{C}$	-	-	10	

NOTES:

1. Mounted on a FR4 PCB, single-sided copper, mini pad
2. Short duration pulse test used to minimize self-heating effect

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## TYPICAL CHARACTERISTIC CURVES

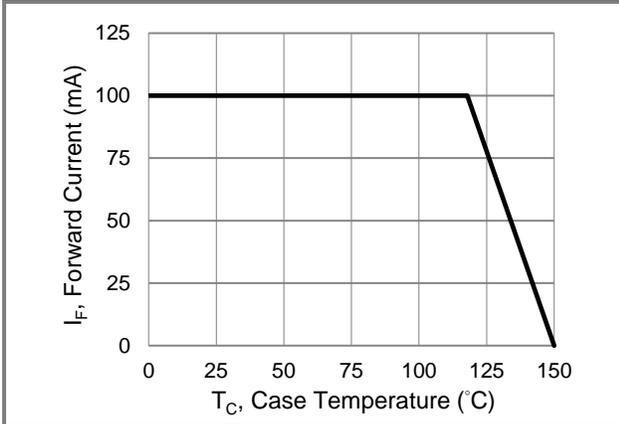


Fig.1 Forward Current Derating Curve

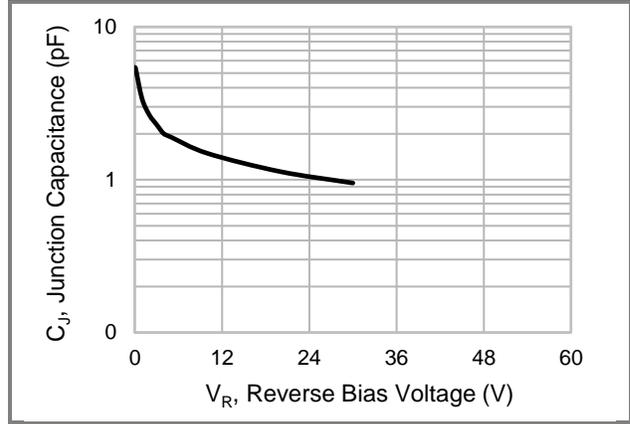


Fig.2 Typical Junction Capacitance

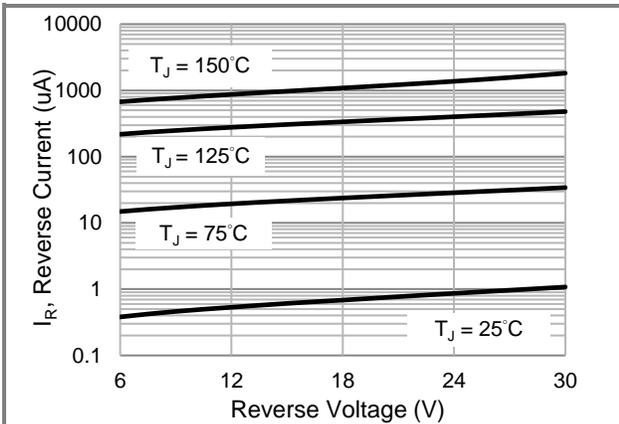


Fig.3 Typical Reverse Characteristics

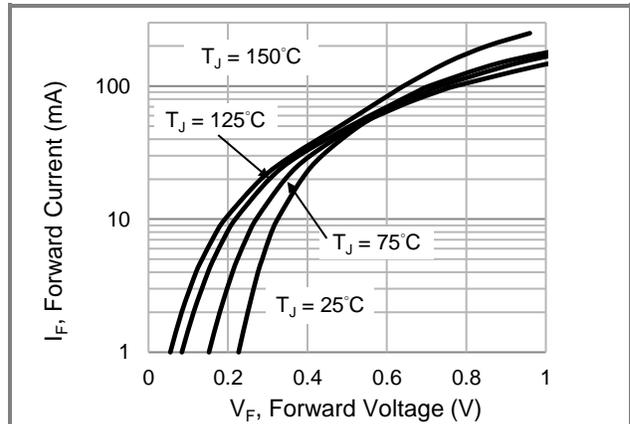


Fig.4 Typical Forward Characteristics

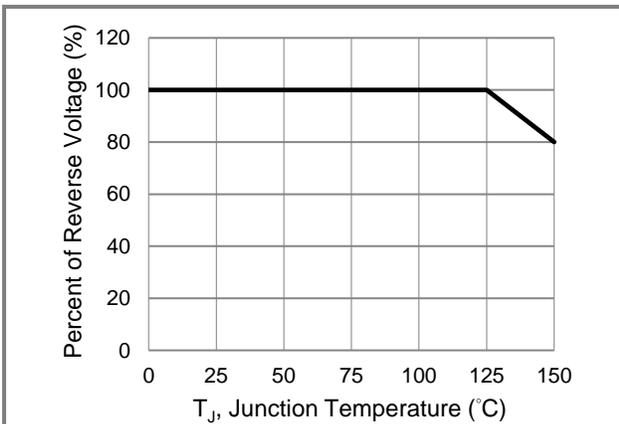


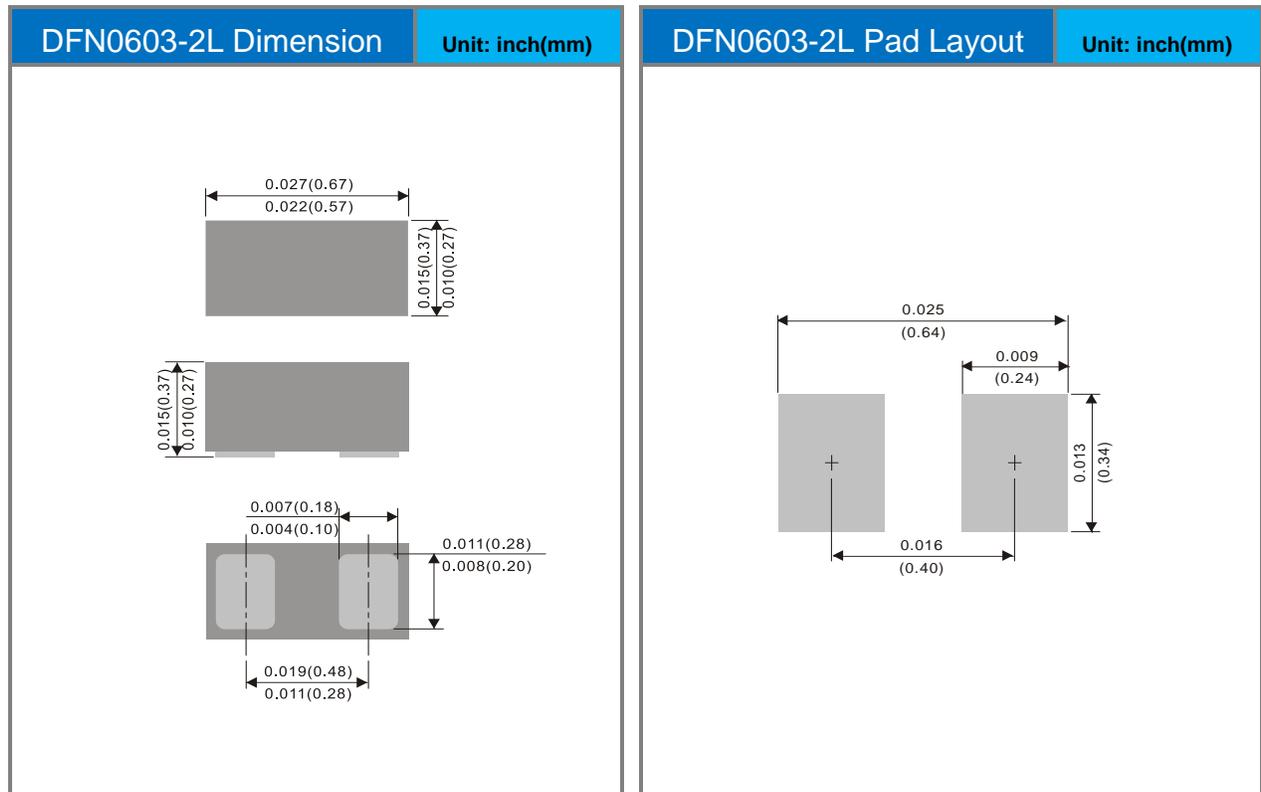
Fig.5 Operating Temperature Derating Curve

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## Product and Packing Information

Part No.	Package Type	Packing Type	Marking
SS0140Q	DFN0603-2L	10K / 7" reel	14

## Packaging Information & Mounting Pad Layout



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