

SS0140Q

SCHOTTKY BARRIER RECTIFIER

Voltage

30 V

Current

0.1 A

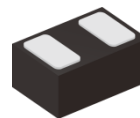
Features

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

PARAMETER	SYMBOL	LIMIT	UNITS
Peak to Peak Voltage (Duty 1 %, 10 KHz)	V_{PK-PK}	40	V
Maximum Recurrent Peak Reverse Voltage	V_{RRM}	30	V
Maximum RMS Voltage	V_{RMS}	21	V
Maximum DC Blocking Voltage	V_{DC}	30	V
Maximum Average Forward Rectified Current	$I_{F(AV)}$	0.1	A
Peak Forward Surge Current: 8.3 ms single half sine-wave superimposed on rated load per diode	I_{FSM}	2	A
Typical Junction Capacitance Measured at 1 MHz And Applied $V_R = 4V$	C_J	2	pF
Typical Thermal Resistance per diode	$R_{\theta JA}^{(1)}$	500	$^\circ\text{C/W}$
Operating Junction Temperature Range	T_J	-55 to +150	$^\circ\text{C}$
Storage Temperature Range	T_{STG}	-55 to +150	$^\circ\text{C}$



SS0140Q

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

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

NOTES:

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

SS0140Q

TYPICAL CHARACTERISTIC CURVES

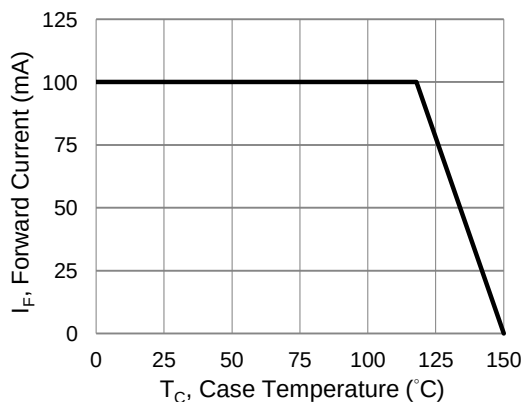


Fig.1 Forward Current Derating Curve

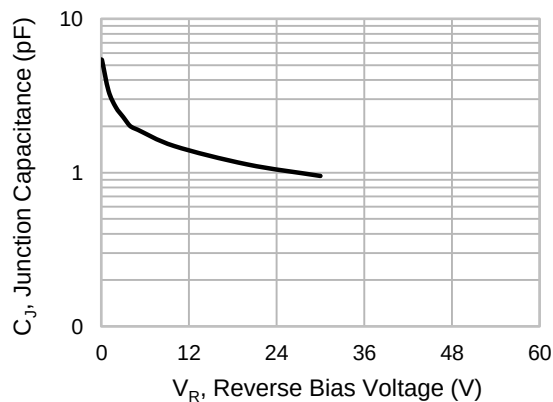


Fig.2 Typical Junction Capacitance

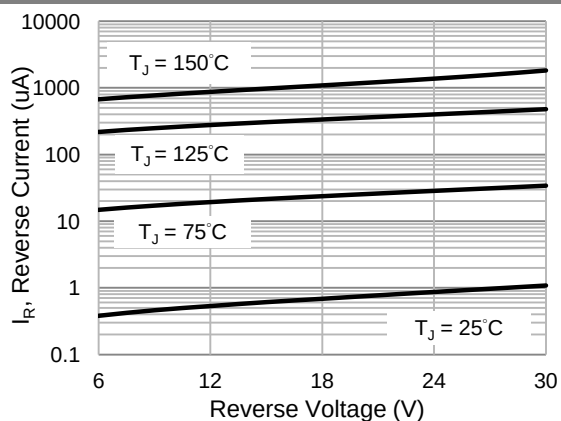


Fig.3 Typical Reverse Characteristics

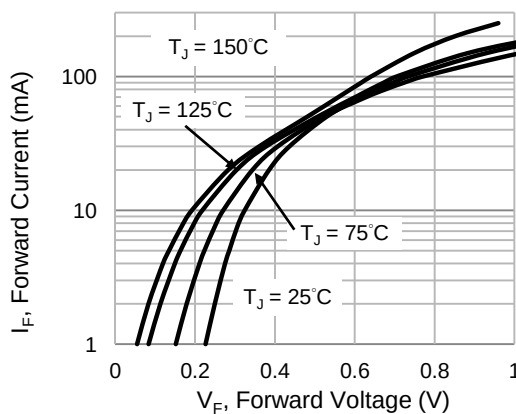


Fig.4 Typical Forward Characteristics

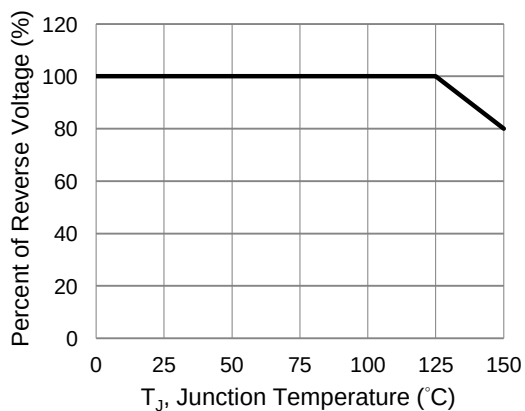


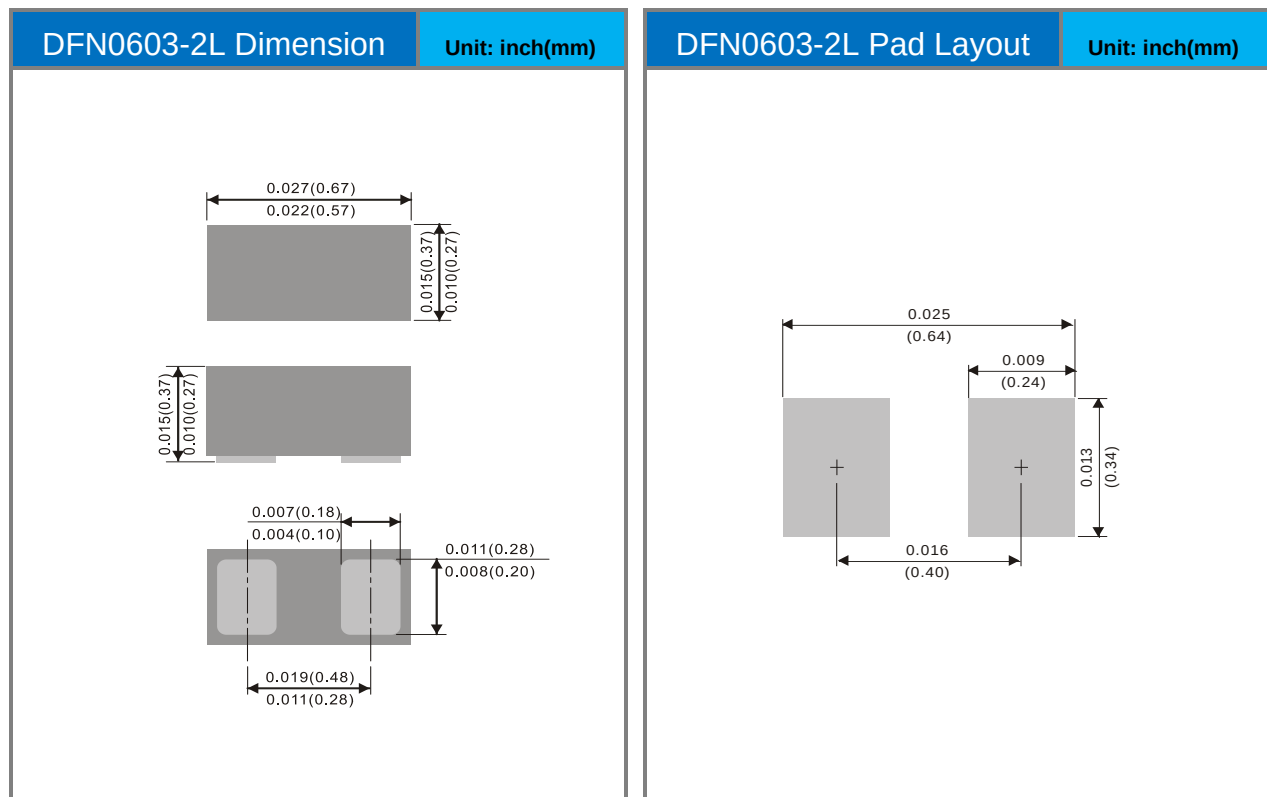
Fig.5 Operating Temperature Derating Curve

SS0140Q

Part No Packing Code Version

Part No Packing Code	Package Type	Packing Type	Marking	Version
SS0140Q_R1_00001	DFN0603-2L	10K / 7" reel	14	Halogen free

Packaging Information & Mounting Pad Layout





SS0140Q

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