

SB0520Q

Very Low V_F Schottky Rectifier

Voltage	20 V	Current	0.5 A
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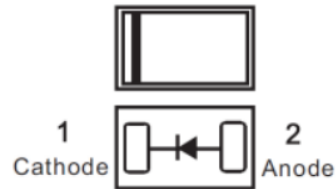
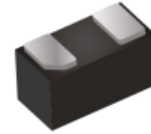
Features

- Very low forward voltage drop
- Fast switching speed
- Surface mount package ideally suited for automatic insertion
- Lead free in compliance with EU RoHS 2.0
- Green molding compound as per IEC 61249 standard

Mechanical Data

- Case : DFN1006-2L Package
- Terminals : Solderable per MIL-STD-750, Method 2026
- Approx. Weight : 0.0006 grams

DFN1006-2L



Maximum Ratings and Thermal Characteristics ($T_A = 25^\circ\text{C}$ unless otherwise noted)

PARAMETER	SYMBOL	LIMIT	UNIT
Maximum Recurrent Peak Reverse Voltage	V_{RRM}	20	V
Maximum RMS Voltage	V_{RMS}	14	V
Maximum DC Blocking Voltage	V_{DC}	20	V
Maximum Average Forward Rectified Current	$I_{F(AV)}$	0.5	A
Peak Forward Surge Current : 8.3ms single half sine-wave superimposed on rated load	I_{FSM}	2	A
Typical Thermal Resistance	(Note 1) $R_{\theta JC}$ (Note 2) $R_{\theta JA}$	200 430	$^\circ\text{C/W}$
Operating Junction Temperature Range	T_J	-55~150	$^\circ\text{C}$
Storage Temperature Range	T_{STG}	-55~150	$^\circ\text{C}$

SB0520Q

Electrical Characteristics (T_A = 25°C unless otherwise noted)

PARAMETER	SYMBOL	TEST CONDITION	MIN.	TYP.	MAX.	UNIT
Forward Voltage	V _F	I _F = 10 mA	-	0.31	0.36	V
		I _F = 100 mA	-	0.39	0.44	
		I _F = 0.5 A	-	0.49	0.55	
	V _F	I _F = 10 mA	-	0.17	-	V
		I _F = 100 mA	-	0.27	-	
Reverse Current ^(Note 3)	I _R	V _R = 10V	-	0.3	10	uA
		V _R = 20V	-	1	20	
	I _R	V _R = 10 V	-	0.3	-	mA
		V _R = 20 V	-	0.6	-	

NOTES :

1. Mounted on a FR4 PCB, single-sided copper, with 100cm² copper pad area.
2. Mounted on a FR4 PCB, single-sided copper, standard footprint.
3. Short duration pulse test used to minimize self-heating effect.

SB0520Q

TYPICAL CHARACTERISTIC CURVES

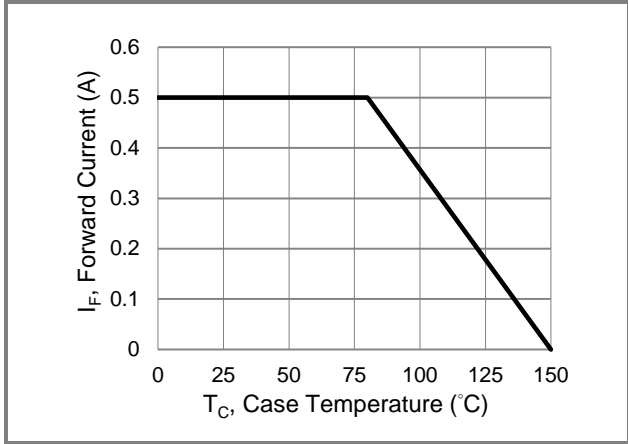


Fig.1 Forward Current Derating Curve

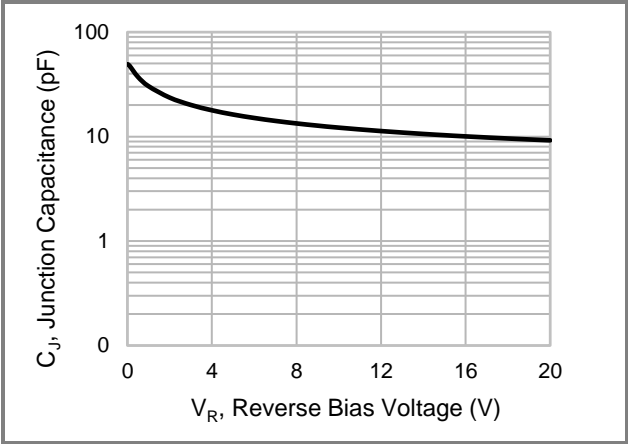


Fig.2 Typical Junction Capacitance

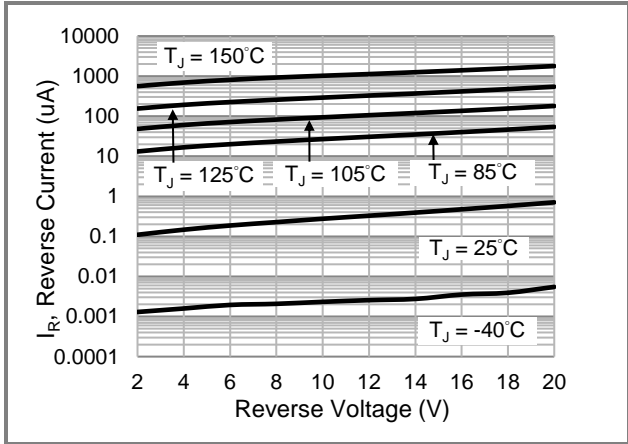


Fig.3 Typical Reverse Characteristics

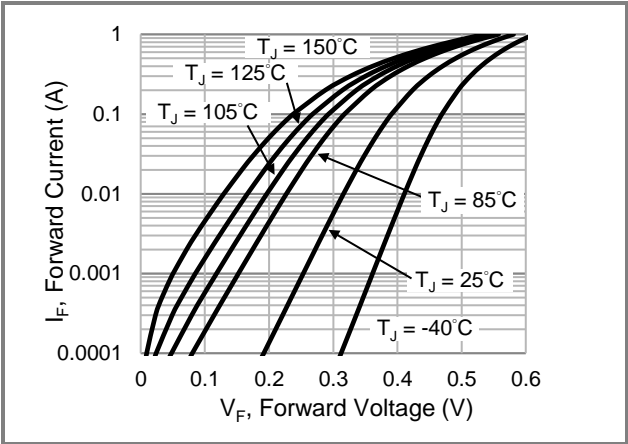


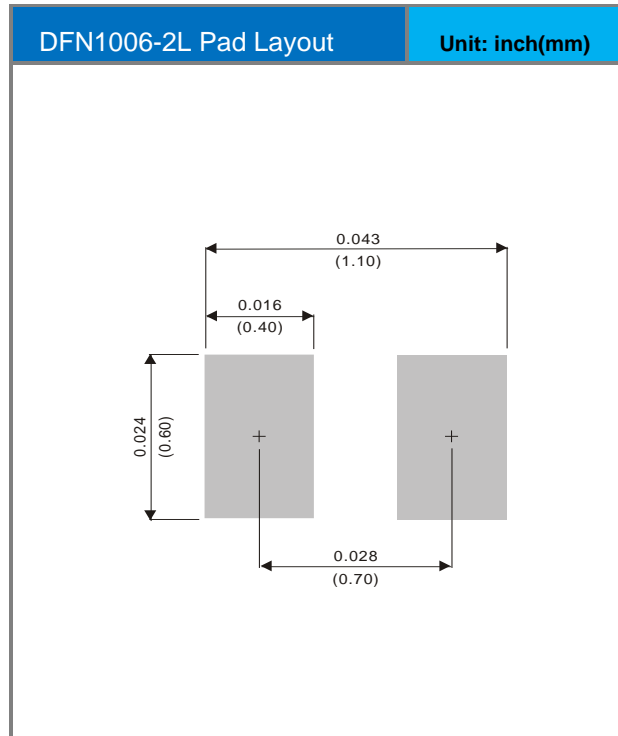
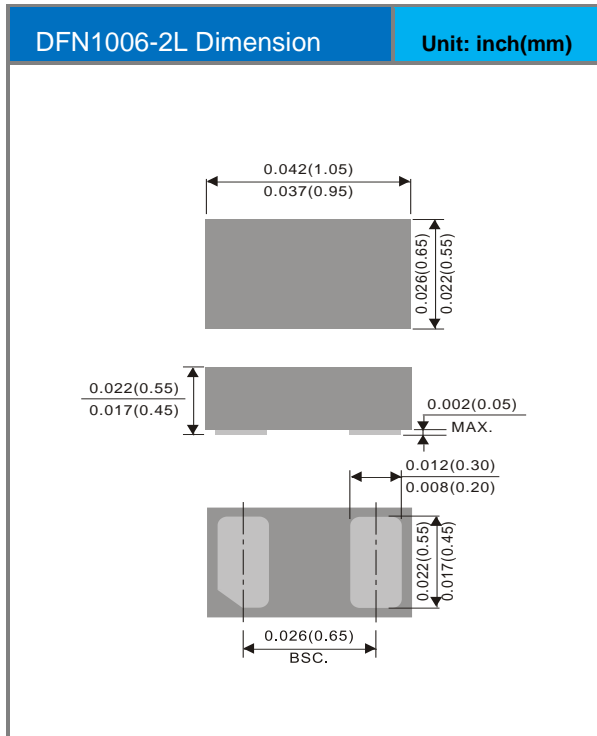
Fig.4 Typical Forward Characteristics

SB0520Q

Product and Packing Information

Part No.	Package Type	Packing Type	Marking
SB0520Q	DFN1006-2L	10K pcs / 7" reel	YF

Packaging Information & Mounting Pad Layout



SB0520Q

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