SPECIFICATION SHEET

SMD SAW FILTER 6 PADS 3030 TYPE SXF SERIES

SPECIFICATION SHEET NO.	S0407 - SXF0947RBNSS30	
ORIGINAL MFG/PART NO.	Shengxin SAW/SXF0947RBNSS02/SXF0909	
NEXTGEN PART CODE	SXF0947RBNSS30	Indicate This Code For RFQ Order
DATE	Apr. 7, 2025	
REVISION	A3	Updated With Most Recent Data
DESCRIPTION AND MAIN PARBMETRICS	SMD SAW Filter, 6 Pads, 3030 Type, SXF Series Case code DCC6C, Case Dimension L3.0*W3.0*H1.50mm Center Frequency 947.5MHz; Insertion Loss: 1.4dB Typical, 2.0dB Max. Amplitude Ripple: 2.0dB Max. Operating Temp. Range -40℃ ~ +85℃ Reflow Profile Condition 260℃ Max. Package in Tape/Reel, 1000pcs/Reel REACH/RoHS/RoHS III Compliant	
CUSTOMER		
CUSTOMER PART NUMBER		
CROSS REF. PART NUMBER		
MEMO		

VENDOR APPROVE
Issued/Checked/Approved NextGen Components, Inc. Mandy Xu NextGen Components, Inc. Ruby Zhang NextGen Components, Inc. Jack Zhang
Effective Date: Apr. 7, 2025

CUSTOMER APPROVE
Date:

MAIN FEATURE

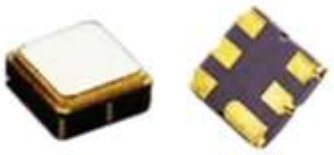


Image shown is a representation only. Exact specifications should be obtained from the product dimension.

- SMD SAW Filter 3030 Type 6 Pads
- Dimension L3.0*W3.0*H1.5mm, Case code DCC6C
- Low-loss SAW filter
- Low Amplitude Ripple
- No Matching Network Required For Operation At 50Ω
- Ceramic Package For Surface Mounted Technology (SMT)
- Electrostatic Sensitive Device (ESD)
- Moisture Sensitivity Level (MSL) 1
- Short Lead time
- Cross Competitors Parts and More
- REACH/RoHs/RoHs III Compliant

APPLICATION

- Bluetooth, Wireless Communication Set
- Communication Electronics
- GPS, Remote Control Application

ELECTRICAL CHARBCTERISTICS

- See Page 5
- All Products Parameters are Subject To NextGen Components' Final Confirmation.

HOW TO ORDER

- Please Follow Up Part Code Guide And Indicate NextGen Part Code SXF0947RBNSS30 For RFQ and Order.

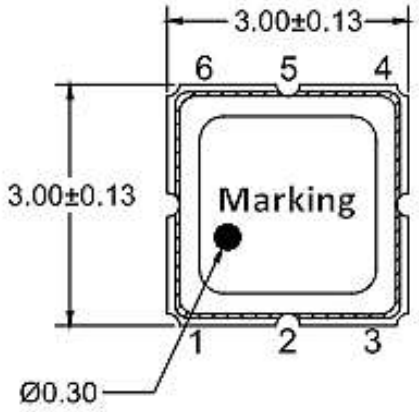
PART CODE GUIDE

RFQ
Request For Quotation

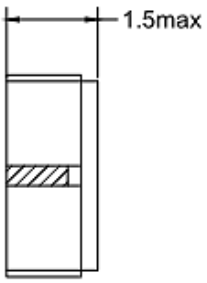
CODE	NAME	KEY SPECIFICATION OPTION
SXF	Series Code	SMD SAW Filter
0947R	Frequency Range Code	0947R: 947.5MHz or Custom Frequency Range
BNS	Internal Control Code	Letter A~Z, a~z or Digits (1-9)
S30	Dimension Code	S30: Case Dimension L3.0*W3.0*H1.5mm, 6 Pads, 3030 Type
XX	Special/Custom Parameters Code	Blank: N/A XX: Letter A~Z, a~z or Digits (0~9) for Special/Custom Parameters

DIMENSION - Unit: mm, L3.0*W3.0*H1.5mm

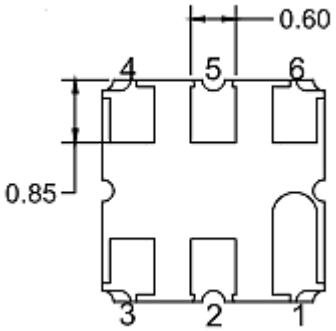
Top View



Side View



Bottom View



PIN CONFIGURATION	
2	Input
5	Output
1,3,4,6	To Be Ground

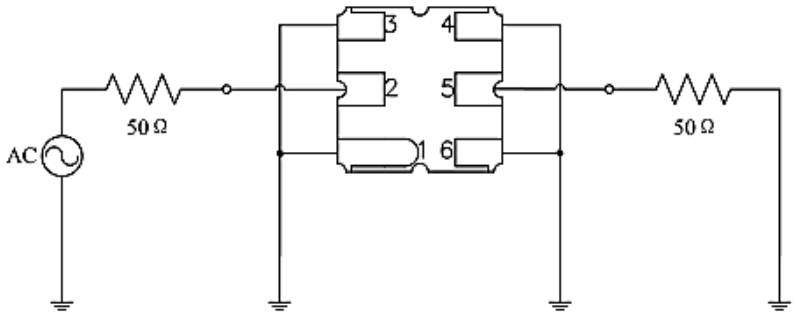
MAX. RATING & CHARACTERISTICS - At 25±2°C Ambient Temperature Unless Otherwise Specified.

PARAMETER	SYMBOLS	VALUE	UNITS
RF Power Level	P	15	dBm
DC Voltage	V_{DC}	6	V
Operating Temperature Range	T_A	-40 to +85	°C
Storage Temperature Range	Tstg	-45 to +85	°C
ESD Voltage (MM)	V_{MM}	50	V
ESD Voltage (HBM)	V_{HBM}	175	V

ELECTRONICAL CHARACTERISTICS - At 25±2°C Ambient Temperature Unless Otherwise Specified.

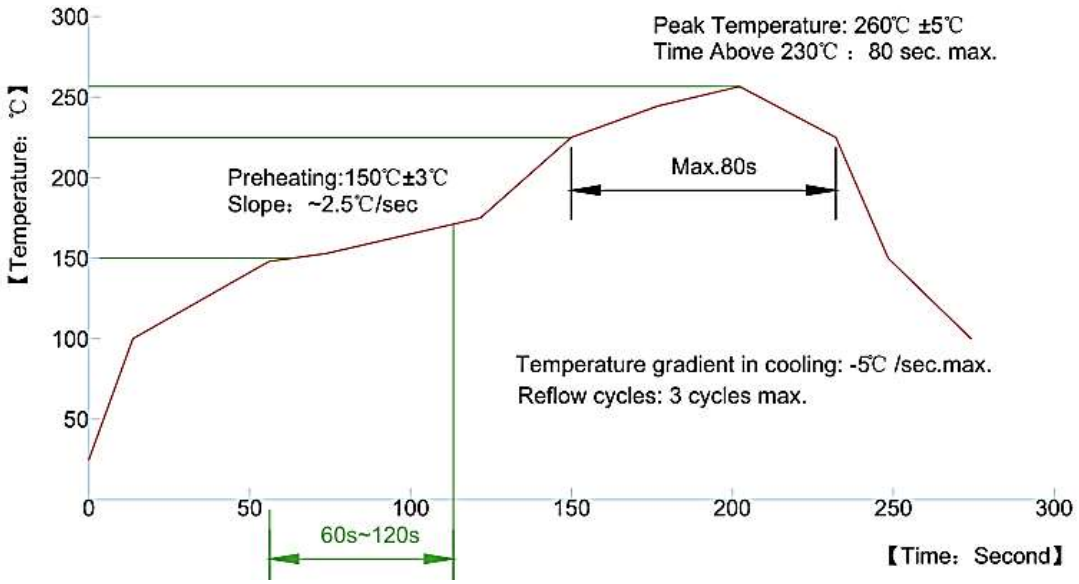
PARAMETER	FREQUENCY RANGE (MHz)	CHARACTERISTICS			
		MIN.	TYPICAL	MAX.	UNIT
Center Frequency	-	-	947.5	-	MHz
Insertion Loss	Min	-	1.4	2.0	dB
	935 - 960	-	2.1	3.2	dB
Group Delay Ripple	935 - 960	-	40	100	ns
Amplitude Ripple	935 - 960	-	0.9	2.0	dB
VSWR	935 - 960	-	1.8	2.0	-
Absolute Attenuation	DC – 700	45	52	-	dB
	700 – 910	45	52	-	dB
	910 – 925	25	40	-	dB
	975 – 1000	20	25	-	dB
	1000 – 2000	40	50	-	dB
	2000 - 3000	25	33	-	dB

MEASUREMENT CIRCUIT – FOR REFERENCE ONLY



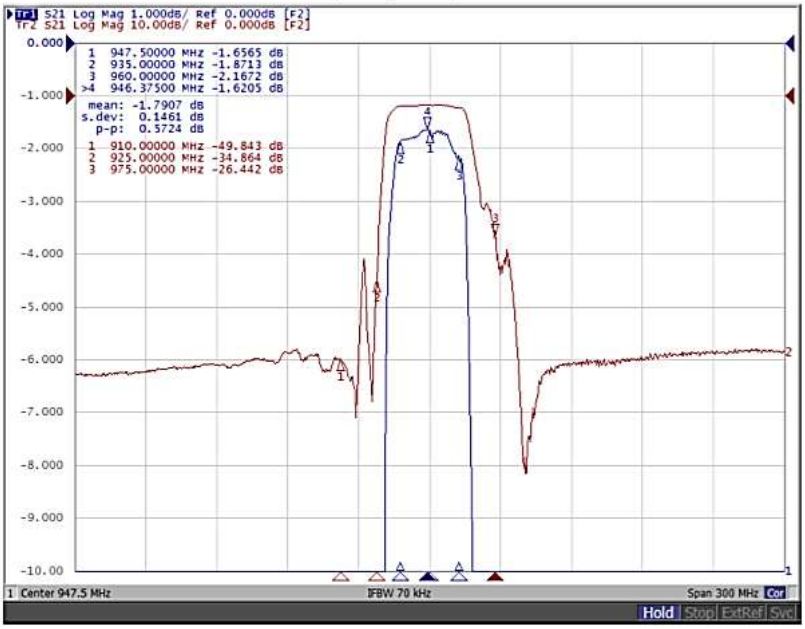
PIN CONFIGURATION	
2	Input
5	Output
1,3,4,6	To Be Ground

RECOMMENDED SOLDERING PROFILE – FOE REFERENCE ONLY

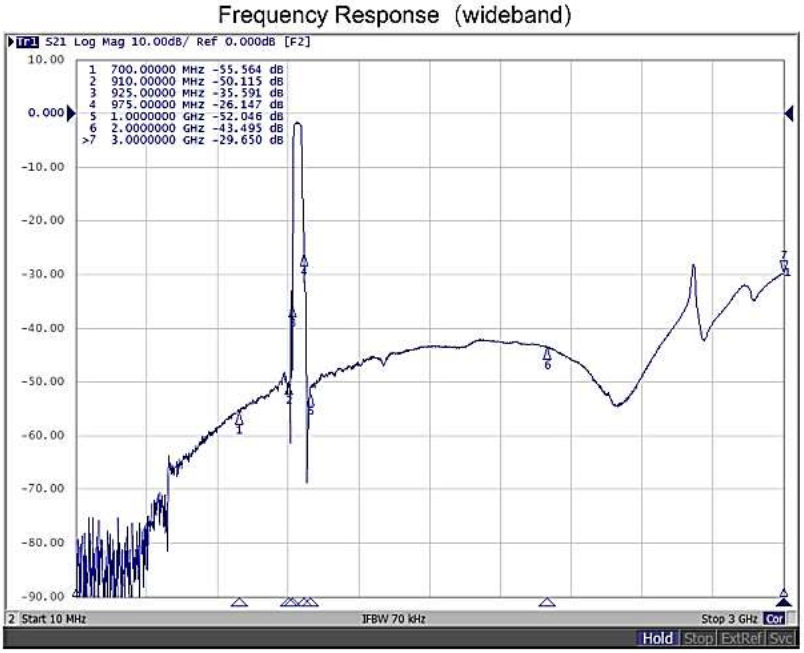


FREQUENCY CHARACTERISTICS – FOR REFERENCE ONLY

Frequency Response

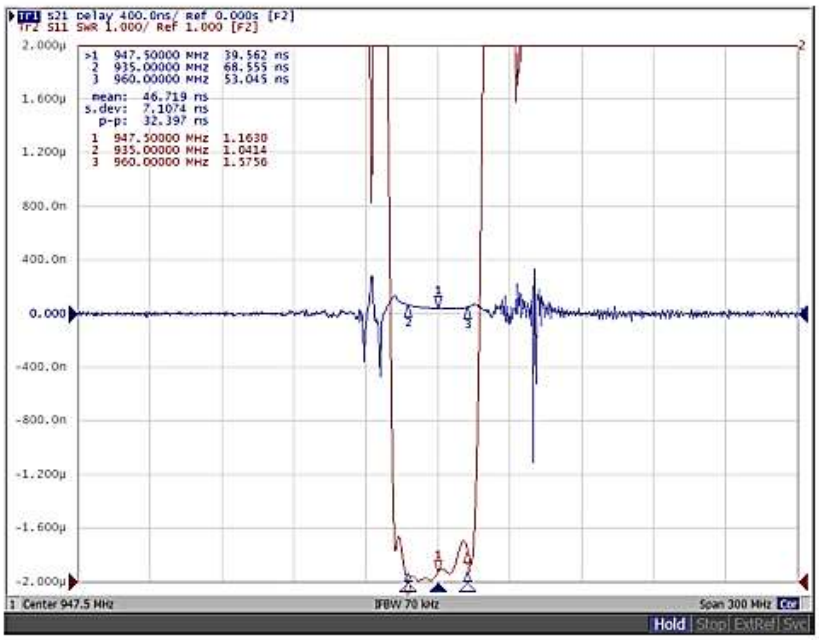


Frequency Response (wideband)

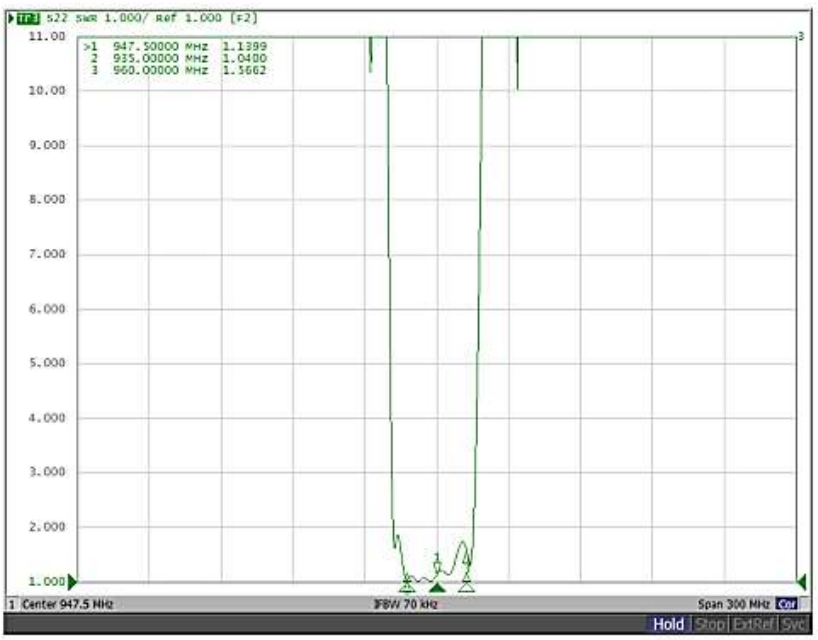


FREQUENCY CHARACTERISTICS – FOR REFERENCE ONLY

S11 VSWR&Group Delay

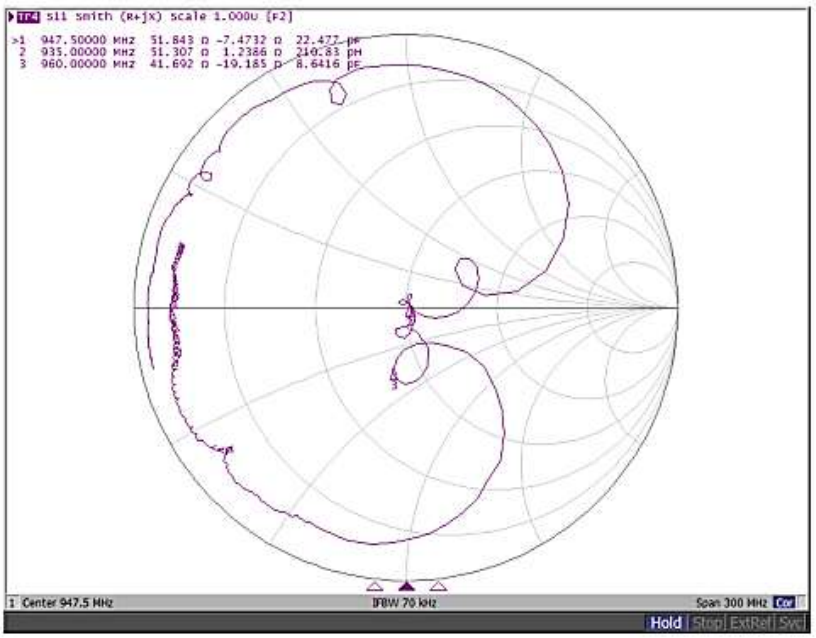


S22 VSWR

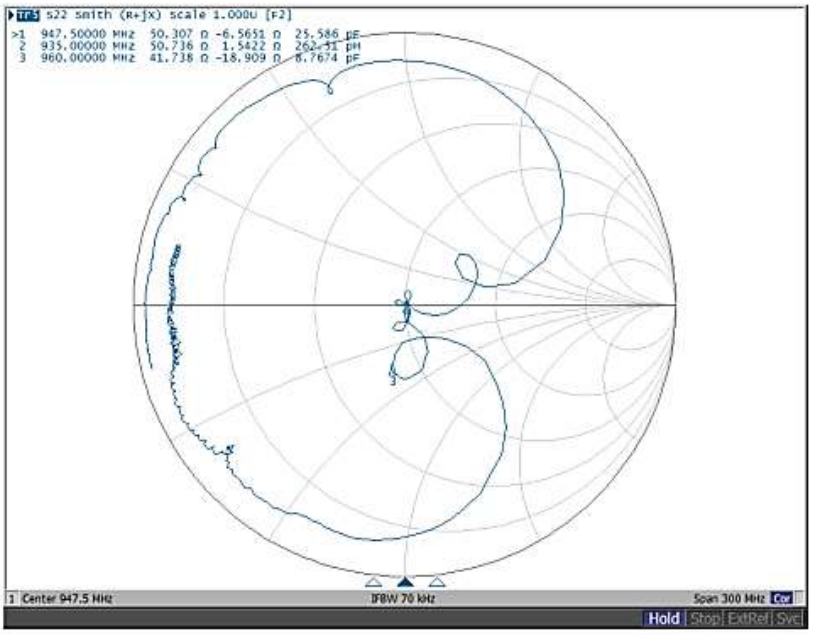


FREQUENCY CHARACTERISTICS – FOR REFERENCE ONLY

S11 Smith Chart



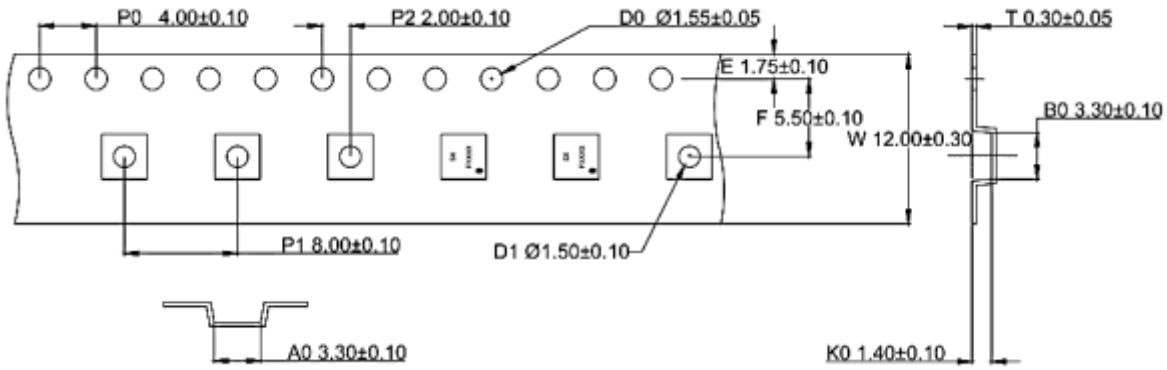
S22 Smith Chart



RELIABILITY CHARACTERISTICS

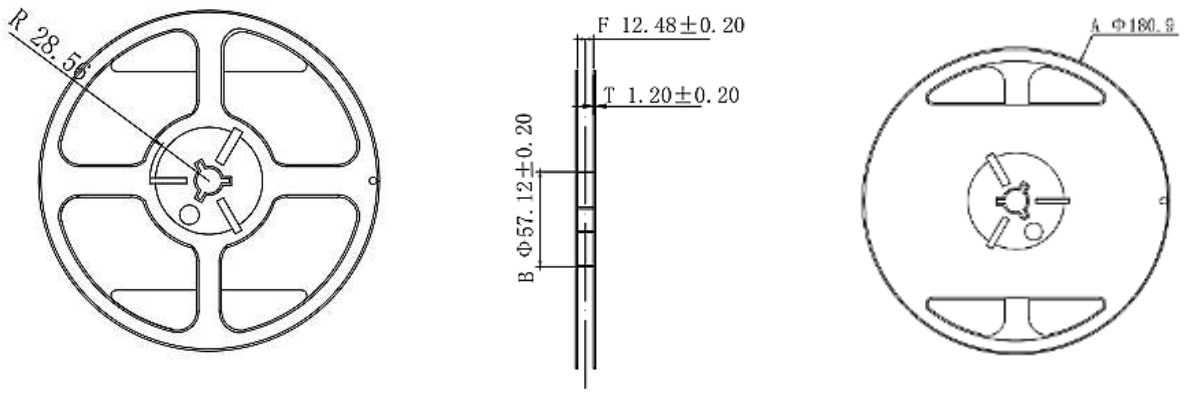
TEST ITEMS	TEST METHOD AND CONDITIONS
High Temperature Storage	• Test temperature: +85℃±3℃ • Duration time: 500 hours • Restore time: 2 hours at the room temperature (25℃)
Low Temperature Storage	• Test temperature: -40℃±3℃ • Duration time: 500 hours • Restore time: 2 hours at the room temperature (25℃)
High Temperature High Humidity Storage	• Test temperature: +85℃±3℃ • Test Humidity：85%±3% • Duration Hours: 240 hours • Restore time: 2 hours at the room temperature (25℃)
Temperature Cycling	• Test Temperature: -40°$_{-10}$℃~+85^{+10}0℃ • Time for each step: ≥30min • Conversion time: ≤1min • Cycle times: 100 times • Restore time: 24 hours at the room temperature (25℃)
Soldering Heat Resistance	• Reflow with 260±5℃, 10±1s (Solder Pot) • Restore time: 2 hours at the room temperature (25℃)
Solderability Test	Soldering method and temperature: lead-free reflow soldering, 245±5 ℃ for 5±0.5s
Remarks	• Please be certain not to apply voltage above the rated voltage of SAW components. • Please be sure that the component operate within the specified operating temperature range. • Abrupt temperature change shall be avoided because deterioration of the component characteristics can occur under that situation. • Please be careful of soldering temperature when soldering. • Please do not place soldering iron on the body of components. • Please be careful not to subject the terminals or leads of components to excessive force.

TAPE DIMENSION - Unit: mm, All Devices are packed in accordance with EIA standard RS-481-2.



Size	P0	P1	P2	D0	D1	E	F	W	A0	B0	K0	T
Value	4.00	8.00	2.00	Φ1.55	Φ1.5	1.75	5.50	12.0	3.30	3.30	1.40	0.30
Tol.	±0.10	±0.10	±0.10	±0.05	±0.10	±0.10	±0.1	±0.3	±0.1	±0.1	±0.1	±0.05

REEL DIMENSION - Unit: mm, 1000pcs/Reel.



IMPORTANT NOTES AND DISCLAIMER

1. ROHS COMPLIANCE: The levels of RoHS restricted materials in this product are below the maximum concentration values (also referred to as the threshold limits) permitted for such substances, or are used in an exempted application, in accordance with EU RoHS Directive (EU) 2015/863 EC (RoHS3). RoHS Test Report for this product can be obtained can be obtained at Download Center.
2. REACH COMPLIANCE: REACH substances of high concern (SVHCs) information is available for this product. Since the European Chemical Agency (ECHA) has published notice of their intent to frequently revise the SVHC listing for the foreseeable future, REACH Test Report for this product can be obtained can be obtained at Download Center.
3. All Product parametric performance is indicated in the Electrical Characteristics for the listed herein test conditions, unless otherwise noted. Product performance may not be indicated by the Electrical Characteristics if operated under different conditions.
4. NextGen Component, Inc (*NextGen*) reserves the right to make changes to this document and its products and specifications at any time without notice. Customers should obtain and confirm the latest product information and specifications before final design, purchase or use.
5. *NextGen* makes no warranty, representation or guarantee regarding the suitability of its products for any particular purpose, not does *NextGen* assume any liability for application assistance or customer product design.
6. *NextGen* does not warrant or accept any liability with products which are purchased or used for any unintended or unauthorized application. No license is granted by implication or otherwise under any intellectual property rights of NextGen.
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8. *NextGen* requires that customers first obtain an RMA (Returned Merchandise Authorization) number prior to returning any products. Returns must be made within 30 days of the date of invoice, be in the original packaging, unused and like-new condition. At the time of quoting or purchasing, a product may say that it is Non-Cancelable/ Non-Returnable (NCNR). These products are not returnable and not refundable.