**Surface-Mount Device** 

SMD1206-050C-33V

Version: 1.0
Document code: HB-WI7.3-423-20248
Effective date: 2024-6-21

Page: 1 of 3

RoHS 🐃

## Feature

- Resettable over current and over temperature protection
- Small size of 1206
- Small footprint

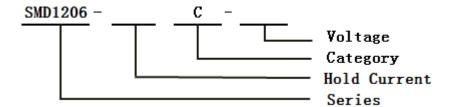
- Low resistance
- Fast time-to-trip
- RoHS complaint

# Application

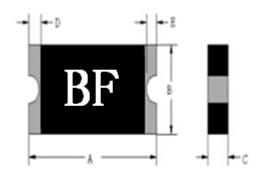
- Computer
- Battery
- Mobile phones

- Industrial controls
- Automotive
- Portable electronics
- Multimedia
- Game machines
- Telephony and broadband

# **Part Numbering**



# **Product Dimensions in Millimeter**



Part Number	Α		В		С		D	E
	Min	Max	Min	Max	Min	Max	Min	Min
SMD1206-050C-33V	3.00	3.60	1.50	1.90	0.40	1.00	0.15	0.10

# **Electrical Characteristics**

	I(A)		V <sub>max</sub>	I max	$Pd_{typ}$	T <sub>trip</sub>		R <sub>min</sub>	R <sub>1max</sub>	
Part Number	25	$^{\circ}\!$			1	25℃	25℃		25℃	
	Hold	Trip	(V)	(A)	(W)	Current(A)	Time(S)	(Ω)	(Ω)	
SMD1206-050C-33V	0.50	1.00	33	50	0.6	8.0	0.10	0.15	0.70	

Version: 1.0

Document code: HB-WI7.3-423-20248 Effective date: 2024-6-21

Page: 2 of 3

# **Surface-Mount Device**

#### SMD1206-050C-33V

RoHS 🐃

 $I_{H}\!\!=\!\!Hold\;current;\;maximum\;current\;at\;which\;the\;device\;will\;not\;trip\;at\quad25\,^\circ\!\!\!C\;\;still\;air\;reflow\;soldering\;of\;260\,^\circ\!\!\!C\;\;for\;20\;sec.$ 

 $I_T$ =Trip current: minimum current at which the device will always trip at  $25\,^{\circ}$ C still air reflow soldering of  $260\,^{\circ}$ C for 20 sec.

V<sub>max</sub>=Maximum continuous voltage device can withstand without damage at rated current

I<sub>max</sub>=Maximum fault current device can withstand without damage at rated voltage.

T<sub>trip</sub>=Maximum time to trip(s) at assigned current reflow soldering of 260 ℃ for 20 sec.

Pd<sub>typ</sub>=Typical power dissipation: typical amount of power dissipated by the device when in state air environment.

R<sub>min</sub>= Minimum resistance of device in initial (un-soldered) state.

 $R_{lmax}$ =Maximum resistance of device at 25°C measured one hour after reflow soldering of 260°C for 20 sec.

Value specified is determined by using the PWB with 0.030 \*1.5oz copper traces.

Caution: Operation beyond the specified rating may result in damage and possible arcing and flame.

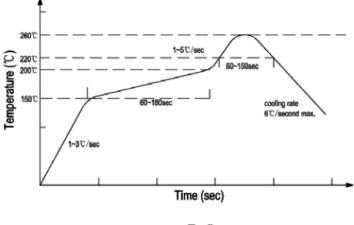
# **Environmental Specifications**

Test	Test Conditions	Accept /Reject Criteria	
Recommended storage conditions	40°C max, 70% R.H. max	No change	
Passive aging:	85°C, 1000 hours	≤ R <sub>1max</sub>	
Moisture Resistance	85% RH,85℃,1000hrs	≤ R <sub>1max</sub>	
Thermal Shock	MIL-STD-202 Method 107G +85°C /-40°C 20 times	≤ R <sub>1max</sub>	
Vibration	MIL-STD-883C, Method 2007.1, Condition A	No change	
Solvent Resistance	MIL-STD-202, Method 215	No change	
Moisture Level Sensitivity	Level 2, J-STD-020C	No change	

## Thermal Derating [ Hold Current (A) at Ambient Temperature (°C)]

Part Number	Maximum Ambient Operating Temperature (°ℂ)								
	-40	-20	0	25	40	50	60	70	85
SMD1206-050C-33V	0.71	0.64	0.57	0.50	0.42	0.39	0.35	0.31	0.25

## **Solder Reflow Recommendation**



Reflow -curve



Version: 1.0

Document code: HB-WI7.3-423-20248 Effective date: 2024-6-21

Page: 3 of 3

#### **Surface-Mount Device**

#### SMD1206-050C-33V

RoHS 🐃

Recommended reflow methods:IR,hot air oven ,nitrogen oven

Devices can be cleaned using standard industry methods and solvents.

NOTE:

If reflow temperatures exceed the recommended profile, devices may not meet the performance requirements.

Caution: Operation beyond the rated voltage or current may result in rupture electrical arcing or flame

# **Packaging Quantity and Marking**

Device	Marking	Standard Quantity (pcs)		
SMD1206-050C-33V	BF	3500		

#### NOTE:

BNstar Co.,Ltd. makes no representations or warranties with respect to the accuracy or completeness of the contents of this publication and reserves the right to make changes to specifications and product descriptions at any time without notice. The products described in this document are not designed, intended, authorized or warranted for use as components in systems intended for surgical implant into the body, or in other applications intended to support or sustain life, or where malfunction of BNstar's product may result in direct physical harm, injury, or death to a person or severe property or environmental damage. BNstar Co.,Ltd., reserves the right to discontinue or make changes to its products at any time without notice.

#### Website: http://www.bnstar.net

For additional information, please contact your local Sales Representative.

©Copyright 2006, BNstar Co.,Ltd.



Operation beyond the maximum ratings or improper use may result in device damage and possible electrical arcing and flame. The devices are intended for protection against occasional over-current or over temperature fault conditions and should not be used when repeated fault conditions or prolonged trip events are anticipated. Device performance can be impacted negatively if devices are handled in a manner inconsistent with recommended electronic, thermal, and mechanical procedures for electronic components.

#### **Contact information**

BNSTAR NEW MATERIALS CO., LTD.

130Meilong Road Shanghai, P.R.China

Tel:86-021-64251576 Fax: 86-021-64250020

EMAIL: info@bnstar.net

Rev. letter		Date	
Design	Check	Audit	Approve

# **X-ON Electronics**

Largest Supplier of Electrical and Electronic Components

Click to view similar products for Resettable Fuses - PPTC category:

Click to view products by BNstar manufacturer:

Other Similar products are found below:

RF0077-000 RF0627-000 RF3301-000 RF3382-000 RF3394-000 RF3399-000 SMD125-2 RF1973-000 RF2531-000 RF2873-000 RF3060-000 RF3311-000 TR600-150Q-B-0.5-0.130 RXE090 5E4795/04-1502 TRF250-080T-B-1.0-0.125 SMD100-2 NIS5431MT1TXG SMD250-2 RS30-090 RS30-600 RS30-800 RS30-900 RS60RB-160 RS60SB-250 SB250-145 K30U400 0ZCH0110AF2E BK60-110-DI-E0.6 BK250-120-SZ-E0.6 BK60-010-DI-E0.5 BK250-040-DY-E0.6 RF2631-000 NIS4461MT3TXG NIS5420MT2TXG NIS5420MT3TXG NIS6420MT1TWG RF5032-000 RF5051-000 RF5105-000 RF5062-000 RF5055-000 RF5052-000 2920L075/72MR BSMD0603-025-24V BSMD0402L-005 BSMD0603-010-9V BSMD1812-020-60V BSMD2920-400-30V BSMD0603-010-12V