

NFVC-F Series

Surface Mount Fuses



FEATURES

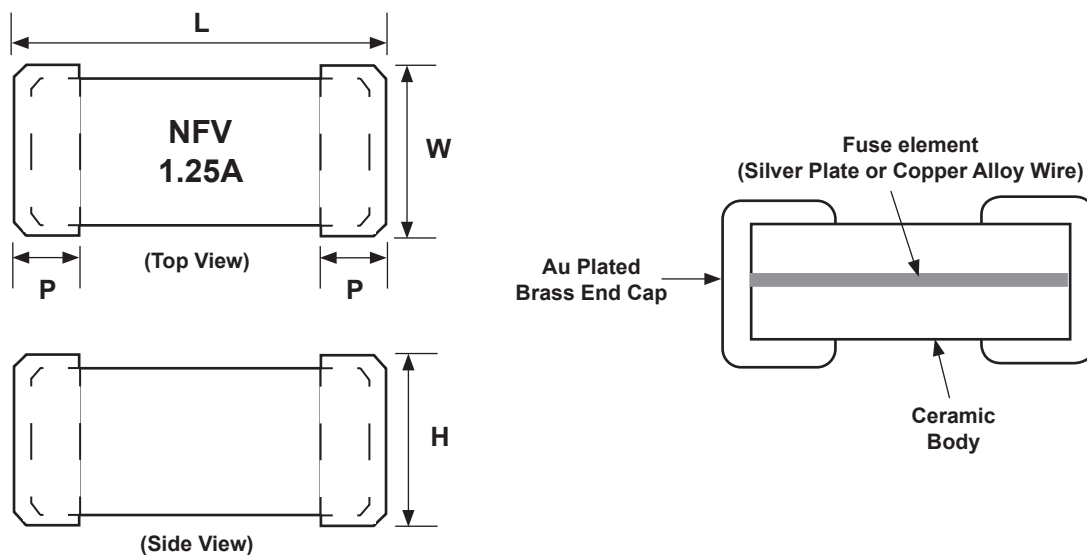
- FAST ACTING, HIGH INRUSH WITHSTANDING
- CASE SIZE 6125 (6.1MM X 2.5MM); 2410 (0.24" x 0.10")
- 65VAC & 125VAC WITH CURRENT RATINGS UP TO 20 AMPS
- SAFETY STANDARD APPROVAL (UL File Number E358637)
- COMPATIBLE WITH FLOW AND REFLOW SOLDERING
- RoHS COMPLIANT & HALOGEN FREE



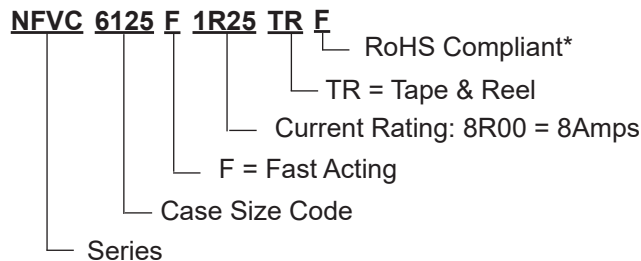
SPECIFICATIONS

Type	Case Size	Rated Current (Amps)	Rated Voltage (VAC)	Temperature Range	Case Dimensions			
					L	W	H	P
NFVC-F	6125	1.0 ~ 20*	65V & 125V	-55°C ~ +125°C	6.1 ± 0.20	2.5 ± 0.1	2.5 ± 0.1	1.4 ± 0.1

*For current ratings below 1A contact NIC



PART NUMBERING SYSTEM



*Exemption 7a - Lead in high melting temperature solder (lead based alloy with 85% by weight or more lead)

SAFETY AGENCY CERTIFICATION

Agency	File Number	Ampere Range
UL	E358637	1.0 ~ 20

UL Certification: JDYX2.E358637

UL Certification Canada: JDYX8.E358637

Fuses, Supplemental Certified Components

These fuses provide supplemental protection in end-use equipment to provide protection for components or internal circuits. They are not suitable for branch or feeder circuit use

Performance Passives By Design

NIC Components Corp.
1 Huntington Quadrangle, Suite 1C10, Melville, NY 11747

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www.niccomp.com

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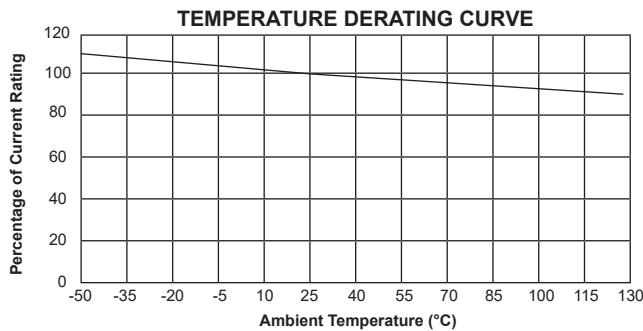


AVAILABLE VALUES AND RATINGS

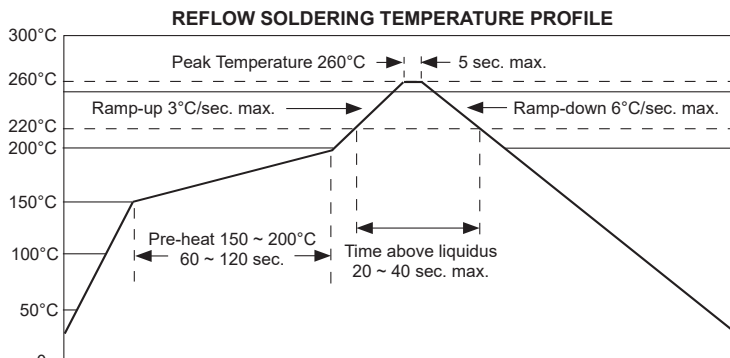
Part Number	Current Rating @ +25°C	Marking	Typical Cold Resistance (mΩ)*	Opening Time (% of Current Rating)		Melting I ² T (A ² ×s) nominal**	Rated Voltage	Interrupt Rating
				100%	200%			
NFVC6125F1R00TRF	1.0	1A	80	4 hrs min.	5 sec. max.	0.56	125VAC	UL: 50A, 125VAC, 160VDC
NFVC6125F1R25TRF	1.25	1.25A	60					
NFVC6125F1R60TRF	1.6	1.6A	38					
NFVC6125F2R00TRF	2.0	2A	30					
NFVC6125F2R50TRF	2.5	2.5A	27					
NFVC6125F3R15TRF	3.15	3.15A	21					
NFVC6125F4R00TRF	4.0	4A	16					
NFVC6125F5R00TRF	5.0	5A	14					
NFVC6125F6R30TRF	6.3	6.3A	10					
NFVC6125F7R00TRF	7.0	7A	9.4					
NFVC6125F8R00TRF	8.0	8A	7.4					
NFVC6125F10R0TRF	10	10A	5.9					
NFVC6125F12R0TRF	12	12A	4.8			4 hrs min.		
NFVC6125F15R0TRF	15	15A	3.7					
NFVC6125F20R0TRF	20	20A	3.0					

* Resistance measured at ≤ 10% rated current and +25°C

** Melting I²T at 10 times the rated current.

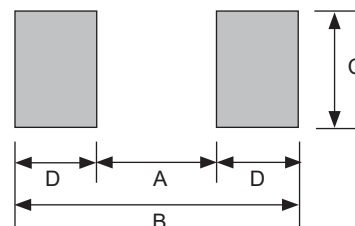


Temp (°C)	Derating Factor
-55	1.080
-40	1.065
-25	1.050
-10	1.035
0	1.025
+10	1.015
+25	1.000
+35	0.990
+45	0.980
+55	0.970
+65	0.960
+75	0.950
+85	0.940
+95	0.930
+105	0.920
+115	0.910
+125	0.900



Recommended Reflow Land Pattern Dimensions (mm)

Case Size	A	B	C	D
6125	3.0 ± 0.3	8.0 ± 0.3	3.0 ± 0.3	2.5 ± 0.3

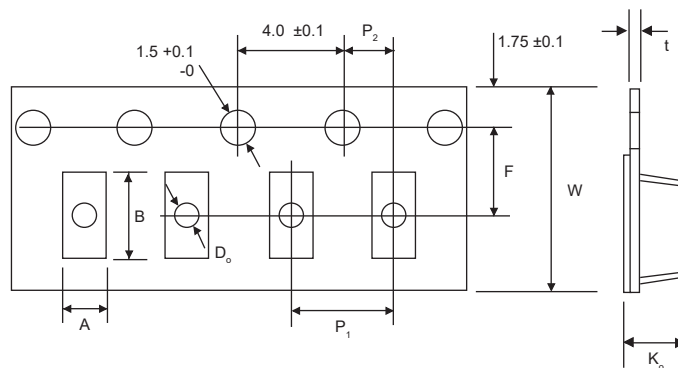


RELIABILITY TEST

Item	Test Conditions/Method	Performance	Standard
Time/Current	100% In	No fusing; 4 hours minimum	UL248-14
	200% In	1 ~ 10A <5 seconds 12 ~ 20A < 20 seconds	Refer to ????
	1000% In	1mS ~ 10mS	IEC-60127-4
Voltage Drop	100% of rated current	1 ~ 6.3A <300mV 7 ~ 10A <220mV 12 ~ 20A < 150mV	IEC-60127-4
Endurance Test	100 cycles at 100% of rated current for 1 hour, off for 15 minutes followed by 125% of rated current for 1 hour	$ \Delta R < 10\%$ 1 ~ 6.3A $\Delta T < 75^\circ\text{C}$ 7 ~ 10A $\Delta T < 95^\circ\text{C}$	IEC-60127-4
	100% of rated current for 4 hours	$ \Delta R < 10\%$ 12 ~ 20A $\Delta T < 105^\circ\text{C}$	UL248-14
Interrupting Ability	1A ~ 10A Parts: 50A@125VAC/160VDC 12A ~ 20A Parts: 50A@65VAC & VDC	Without permanent arcing, ignition and bursting of fuse link	UL248-14 IEC-60127-4
Solderability	240°C ±5°C, 3 seconds ±0.5s	95% coverage minimum	IEC-60127-4 IEC-60068-2-20 Mil-Std-202
Resistance to Soldering Heat	260°C ±5°C, 10 seconds ±0.5s	$ \Delta R < 10\%$	Mil-Std-202 Method 210
High Temperature Operating Life	T = 70°C ±2°C, 0.6 In, 96 hours	$ \Delta R < 10\%$	Mil-Std-202 Method 108
Humidity (Steady State)	T = 40°C ±2°C, 90 ~ 95% RH, 1000 hours	$ \Delta R < 10\%$	Mil-Std-202 Method 103
Low Temperature Storage	T = -55°C ±3°C, 96 hours	$ \Delta R < 10\%$	IEC-60068-2-1
High Temperature Storage	T = 125°C ±2°C, 96 hours	$ \Delta R < 10\%$	IEC-60068-2-2
Salt Spray	5% salt solution, 48 hours	$ \Delta R < 10\%$	Mil-Std-202 Method 101
Thermal Shock	5 cycles between -55°C/+125°C, 60 minutes; each extreme	$ \Delta R < 10\%$	IEC 60068-2-14

EMBOSSED PLASTIC CARRIER DIMENSIONS (mm)

Type	A	B	W	F	E	P ₁	P ₂	φD	T ₁	K _o
NFVC6125F	2.70 ±0.10	6.40 ±0.10	12.0 ±0.15	5.50 ±0.10	1.75 ±0.10	4.00 ±0.10	2.00 ±0.10	1.50 min.	0.25 ±0.05	2.70 ±0.10



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REEL DIMENSIONS (mm) AND QUANTITY

Type	A ± 2.0	B ± 2.0	C ± 0.5	E ± 0.20	W ± 1.0	Qty
NFVC6125F	178	58	13	2.0	12.5	1,000

