Surface Mount Fuse

NFVC-S Series

FEATURES

- HIGH INRUSH, SLOW BLOW FUSE
- CASE SIZE 6125 (6.1MM X 2.5MM); 2410 (0.24" x 0.10")
- 125VAC WITH CURRENT RATINGS UP TO 5 AMPS
- SAFETY STANDARD APPROVAL (UL File Number E358637)
- COMPATIBLE WITH FLOW AND REFLOW SOLDERING
- RoHS COMPLIANT & HALOGEN FREE

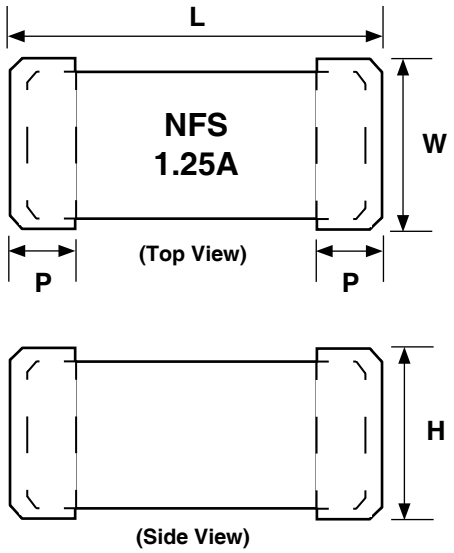
RoHS Compliant
includes all homogeneous materials*

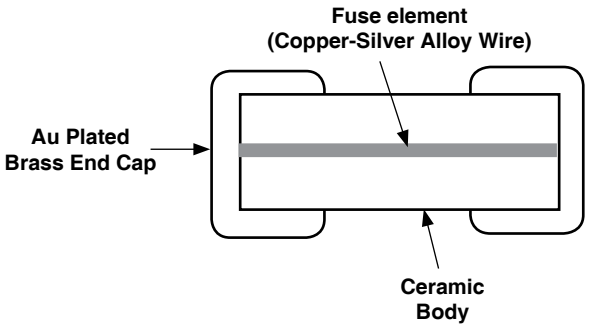
*See Part Number System for Details



SPECIFICATIONS

Type	Case Size	Rated Current (Amps)	Rated Voltage (VAC)	Temperature Range	Case Dimensions			
					L	W	H	P
NFVC6125S	6125	0.2 ~ 5.0	125V	-55°C ~ +125°C	6.1 ± 0.20	2.5 ± 0.1	2.5 ± 0.1	1.4 ± 0.1





PART NUMBERING SYSTEM

NFVC 6125 S 1R25 TR F

- F — RoHS Compliant*
- TR = Tape & Reel
- 1R25 = Current Rating: 1R25 = 1.25Amps
- S = Fuse Type: Slow Blow
- 6125 = Case Size Code
- NFVC = Series

*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	0.5 ~ 5.0
Pending		0.2 ~ 0.375

*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

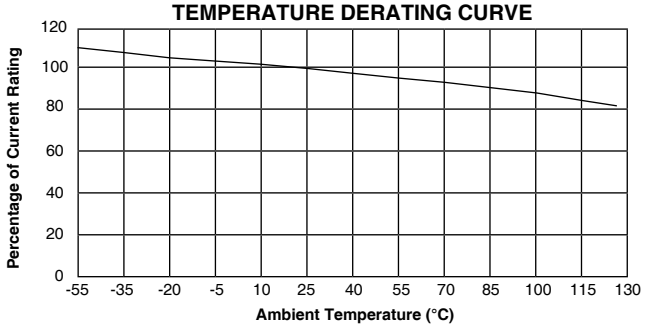
AVAILABLE VALUES AND RATINGS

Part Number	Current Rating @ +25°C	Marking	Typical Cold Resistance (mΩ)*	Opening Time (% of Current Rating)		Melting I²T (A²×s) nominal**	Rated Voltage	Interrupt Rating
				100%	200%			
NFVC6125S0R20TRF	0.2	200	1200	4 hrs min.	120 sec. max.	0.056	125VAC	UL 50A 125VAC 50A 125VDC
NFVC6125S0R25TRF	0.25	250	980			0.065		
NFVC6125S0R315TRF	0.315	315	680			0.155		
NFVC6125S0R375TRF	0.375	375	480			0.200		
NFVC6125S0R50TRF	0.5	500	250			0.312		
NFVC6125S0R75TRF	0.75	750	190			0.512		
NFVC6125S1R00TRF	1.0	1A	126			3.12		
NFVC6125S1R25TRF	1.25	1.25A	101			4.21		
NFVC6125S1R50TRF	1.5	1.5A	78			4.98		
NFVC6125S1R60TRF	1.6	1.6A	74			5.85		
NFVC6125S2R00TRF	2.0	2A	52			7.20		
NFVC6125S2R50TRF	2.5	2.5A	38			14.05		
NFVC6125S3R00TRF	3.0	3A	30			16.92		
NFVC6125S3R15TRF	3.15	3.15A	26			18.68		
NFVC6125S3R50TRF	3.5	3.5A	24			21.95		
NFVC6125S4R00TRF	4.0	4A	21			32.80		
NFVC6125S5R00TRF	5.0	5A	14			37.57		

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

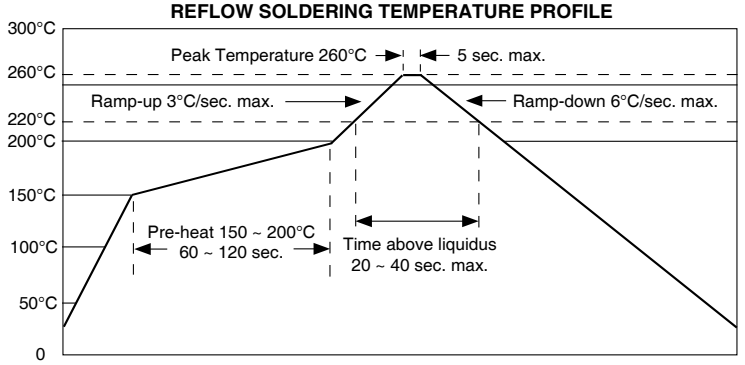
** Melting I²T at 10 times the rated current.

TEMPERATURE DERATING CURVE



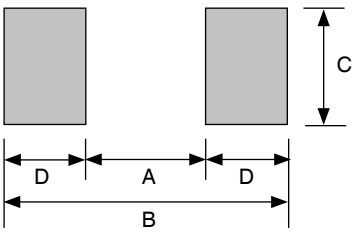
Temp (°C)	Derating Factor
-55	113.82
-45	112.15
-35	110.24
-25	108.60
-15	106.86
-5	105.22
+5	103.48
+15	101.64
+25	100.00
+35	98.29
+45	96.58
+55	95.01
+65	93.42
+75	91.75
+85	89.95
+95	87.96
+105	86.08
+115	84.25
+125	82.35

REFLOW SOLDERING TEMPERATURE PROFILE



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

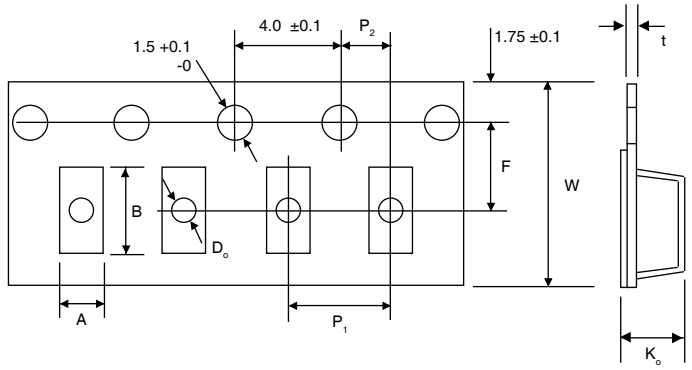


RELIABILITY TEST

Item	Test Conditions/Method	Performance	Standard
Time/Current	100% In	No fusing; 4 hours minimum	UL248-14
	200% In	<120 seconds	IEC-60127-4
	1000% In	>10ms	IEC-60127-4
Voltage Drop	100% of rated current	0.5A ~ 5A <300mV 0.2A ~ 0.375A <500mV	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 and test temperature rise	$\|\Delta R\|$ < 10% ΔT < 75°C	IEC-60127-4
Interrupting Ability	50A@125VAC/125VDC	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	100 cycles between -65°C/+125°C, 60 minutes; each extreme	$\|\Delta R\|$: <(10%+0.005Ω)	IEC 60068-2-14

EMBOSSED PLASTIC CARRIER DIMENSIONS (mm)

Type	A	B	W	F	E	P_1	P_2	ϕD	T_1	K_o
NFVC6125S	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



REEL DIMENSIONS (mm) AND QUANTITY

Type	A ±2.0	B ±2.0	C ±0.5	E ±0.20	W ±1.0	Qty
NFVC6125S	178	58	13	2.0	12.5	1,000

