

## Type XH438/XH438-R

5ØX20mm RoHS Pb

Quick Acting High Breaking Capacity



XH438.....XH438-R



Catalog Number	Ampere Rating [In]	Voltage Rating (V)	Nominal Resistance Cold Ohms	Voltage Drop (mv)MAX	Nominal Melting I <sup>2</sup> t A <sup>2</sup> Sec
VF216/VF216-P .050	50mA	250V**1 or less	15.870	10000	0.00039
VF216/VF216-P .063	63mA		10.410	8800	0.00067
VF216/VF216-P .080	80mA		7.7812	7600	0.00105
VF216/VF216-P .100	100mA		6.0025	7000	0.00318
VF216/VF216-P .125	125mA		3.6781	5000	0.00570
VF216/VF216-P .160	160mA		2.8510	4300	0.01074
VF216/VF216-P .200	200mA		2.0120	3500	0.01589
VF216/VF216-P .250	250mA		1.8670	2800	0.02106
VF216/VF216-P .315	315mA		1.0181	2500	0.04505
VF216/VF216-P .400	400mA		0.8920	2000	0.08400
VF216/VF216-P .500	500mA		0.7500	1800	0.18257
VF216/VF216-P .630	630mA		0.3624	1500	0.28712
VF216/VF216-P .800	800mA		0.2962	1200	0.38481
VF216/VF216-P 001	1A		0.2310	1000	0.28982
VF216/VF216-P 1.25	1.25A		0.1562	800	0.87974
VF216/VF216-P 1.60	1.6A		0.1216	600	1.02649
VF216/VF216-P 002	2A		0.0757	500	1.84254
VF216/VF216-P 2.50	2.5A		0.0573	400	3.34225
VF216/VF216-P 3.15	3.15A		0.0369	350	7.59874
VF216/VF216-P 004	4A		0.0257	300	15.1050
VF216/VF216-P 005	5A		0.0198	250	32.3153
VF216/VF216-P 6.30	6.3A		0.0145	200	63.4221
VF216/VF216-P 008	8A		0.0124	200	105.800
VF216/VF216-P 010	10A		0.0076	200	160.012
VF216/VF216-P 012	12A		0.0061	200	218.002
VF216/VF216-P 12.5	12.5A	0.0053	200	236.002	
VF216/VF216-P 015	15A	0.0045	200	341.240	
VF216/VF216-P 016	16A	0.0040	200	484.240	
VF216/VF216-P 020	20A	0.0026	200	1384.40	
VF216/VF216-P 025	25A	0.0024	200	1468.20	

\*1 More than 250V with new material number

### Approval

Recognized Component for Canada and U.S.	50mA~25A
TUV	100mA~20A
CCC	100mA~10A
CQC	12.5A~20A

### Electrical Characteristic

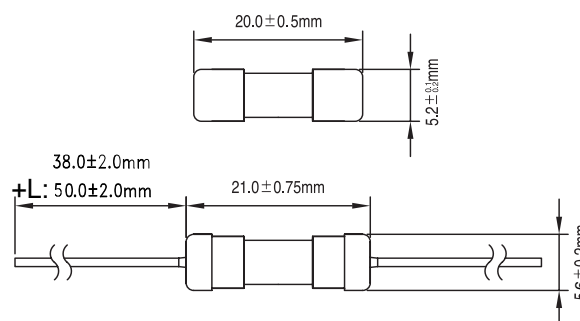
(IEC-60127-2 STANDARD SHEET1)

Rated Current	1.5In		2.1In		2.75 In		4 In		10 In	
	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX
50mA~4A	60 min	30 min	10 ms	2 sec	3 ms	300 ms	20 ms			
5A~6.3A	60 min	30 min	10 ms	3 sec	3 ms	300 ms	20 ms			
8A~25A	30 min	30 min	40 ms	20 sec	10 ms	1 sec	30 ms			

### Interrupting Rating

50mA~16A: 1500 amperes at 250V AC.  
 50mA~25A: 1500 amperes at 250V DC.  
 15A~25A: 300 amperes at 250VAC.

### Mechanical Dimension



### Physical Specification

#### Material

Ceramic body / Nickel Plated Brass Caps  
 Lead Wire:  
 Diameter Ø0.8mm 12A and less.  
 Diameter Ø1.0mm for rating above 15A.

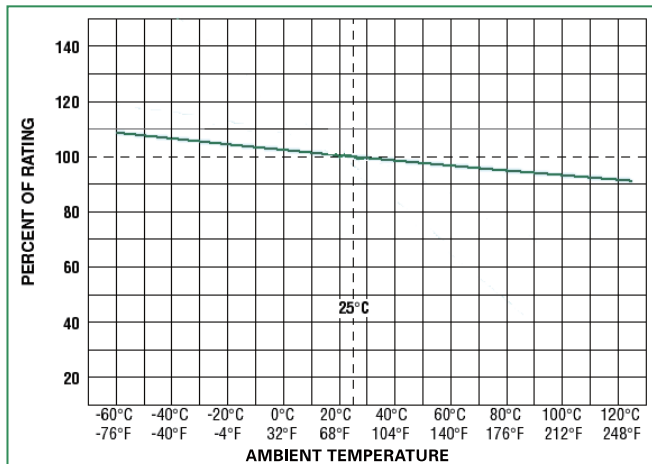
#### Packaging

In Bulk:  
 VF216-500 pcs ; VF216-P-300 pcs per box

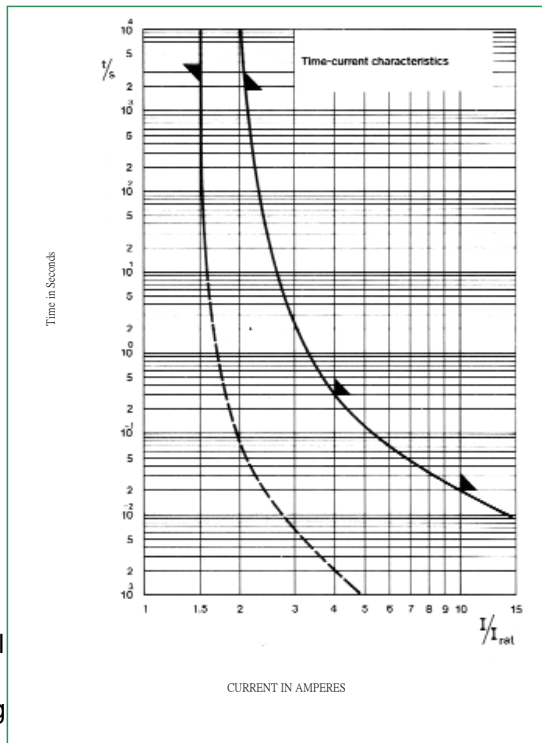
### Environmental Specification

Operating Temperature -55°C to +125°C

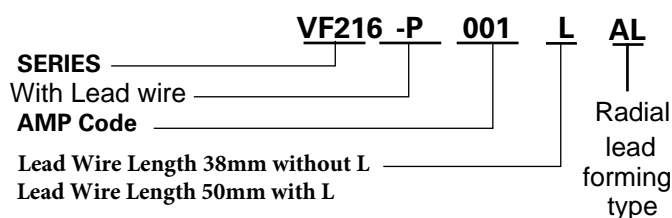
## Temperature Derating Curve



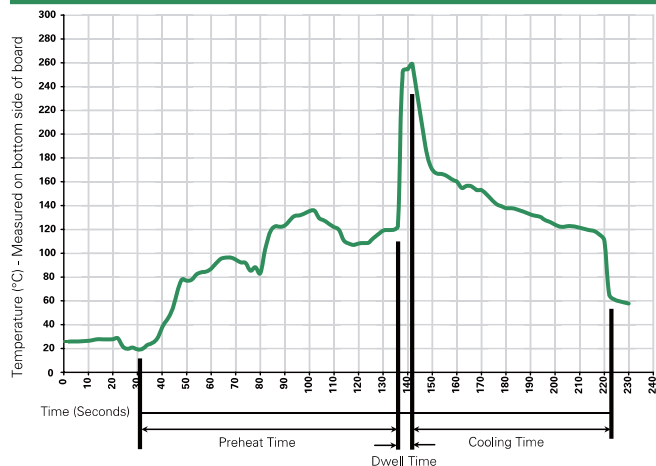
## Average Time Current Curves



## Part Numbering System



## Soldering Parameters



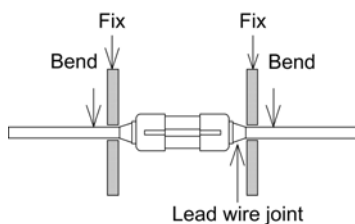
When forming by hand

○ Correct

× Incorrect



When forming with forming dies



For reference only

## Recommended Process Parameters:

Wave Parameter	Lead-Free Recommendation
<b>Preheat:</b> (Depends on Flux Activation Temperature)	(Typical Industry Recommendation)
Temperature Minimum:	100° C
Temperature Maximum:	150° C
Preheat Time:	60-180 seconds
<b>Solder Pot Temperature:</b>	260° C Maximum
<b>Solder Dwell Time:</b>	2-5 seconds

## Recommended Hand-Solder Parameters:

Solder Iron Temperature: 350° C +/- 5° C  
Heating Time: 5 seconds max.

**Note: These devices are not recommended for IR or Convection Reflow process.**

