

Type VF242/VF242-P

3.0mmx8.4mm

Ceramic Tube Fuse

RoHS



Description

The VF242/VF242-P Series hazardous area Barrier network fuse offers a range of fuses designed to enable greater safety operating electronic equipment within potentially explosive environments.

Features

- Meet Barrier Network Standards (EN50020) for hazardous applications.
- High interrupting rating. Meets the 1500A minimum
- Available in both axial lead and surface mount.

Ampere Rating (A)	Amp Code	Body Color Coding	Interrupting Rating	Nominal Cold Resistance (Ohms)	Nominal Melting I ² t (A ² Sec.)
0.050	.050	Red	4000A @ 250VAC/VDC	11.34	0.000193
0.080	.080	Green		8.19	0.000214
0.100	.100	Blue		3.60	0.000977
0.125	.125	Orange		3.55	0.001023
0.160	.160	Violet		3.00	0.00157
0.200	.200	Brown		2.68	0.0038
0.250	.250	Black		1.6	0.00579

Electrical Characteristic

Rated Current	1In	3.0In	10 In
	MIN	MAX	MAX
50mA~250mA	4 hr	10 s	2 ms

Interrupting Rating

4000 amperes at 250V AC/DC

Physical Specification

Material

Ceramic Body / Copper alloy, silver-plated

Packaging

500 Fuses on tape and reel

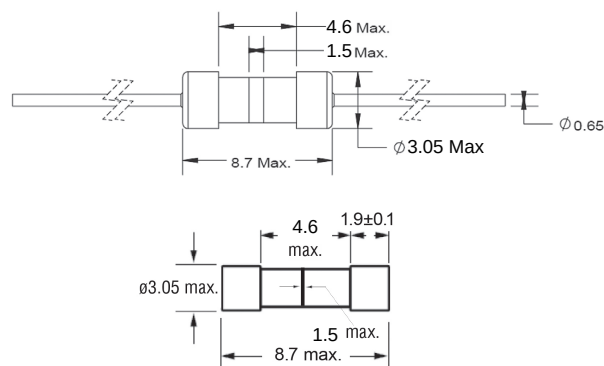
Soldering Method

Reflow soldering: 150°C~200°C, 60~120 s

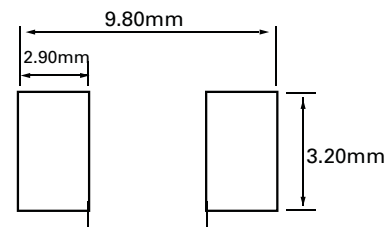
Wave soldering: 260°C, 10 s



Mechanical Dimension(mm)



Recommend pad layout(mm)



Environmental Specification

Operating Temperature

-55°C to +125°C

Resistance to vibration

IEC 60068-2-6 test Fc

Frequency 10-2000 Hz

Cross-over frequency 60Hz

< 60Hz constant amplitude of 0.75mm

> 60Hz constant acceleration of 10 g

Resistance to shock

IEC 60068-2-27 test Ea

981 m/ss(100g), 6ms

Resistance to thermal shock

IEC 60068-2-14 test Na

Ta= -65°C, Tb= 125°C,

Salt mist

IEC 60068-2-11, test Ka

Moisture sensitivity level

Jedec J-STD-020D.1, Level 2

Solderability

IEC 60127-4, clause 8.6.2

Immersion conditions: 250°C ± 3°C, 3s ± 0.3s

Resistance to soldering heat

IEC 60127-4, clause 8.7.2

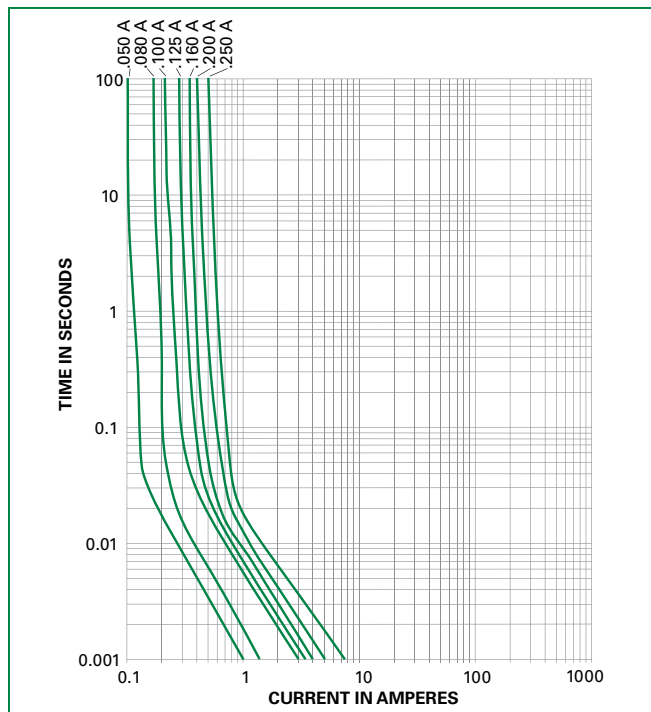
Immersion conditions: 260°C ± 3°C, 10s ± 1s

Resistance to soldering heat

IEC 60127-4, clause 9.9.3

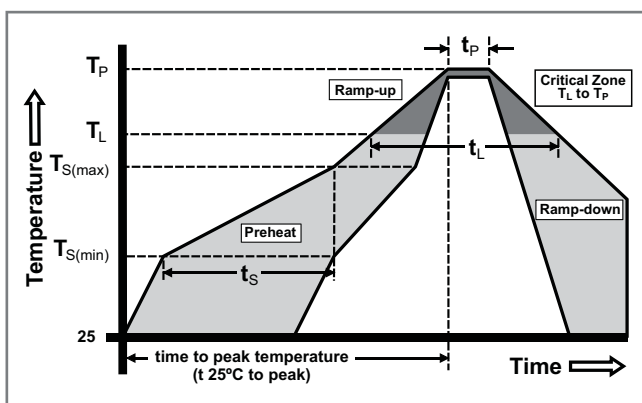
0.1MΩ min. bei @DC 250V

Average Time Current Curves



Soldering Parameters

Reflow Condition		Pb – Free assembly
Pre Heat	- Temperature Min ($T_{s(min)}$)	150°C
	- Temperature Max ($T_{s(max)}$)	200°C
	- Time (min to max) (t_s)	60 – 180 secs
Average ramp up rate (Liquidus Temp (T_L) to peak)		5°C/second max
$T_{s(max)}$ to T_L - Ramp-up Rate		5°C/second max
Reflow	- Temperature (T_L) (Liquidus)	217°C
	- Temperature (t_L)	60 – 150 seconds
Peak Temperature (T_P)		250 $^{+0/-5}$ °C
Time within 5°C of actual peak Temp. (t_p)		20 – 40 seconds
Ramp-down Rate		5°C/second max
Time 25°C to peak Temperature (T_P)		8 minutes Max.
Do not exceed		260°C



Wave Soldering

260°C, 10 seconds max.

Product Characteristics

Operating Temperature	-40°C to 125°C.
Thermal Shock	Withstands 5 cycles of - 55°C to 125°C
Vibration	Per MIL-STD-202F
Insulation Resistance (After Opening)	Greater than 10,000 ohms.

Part Numbering System

