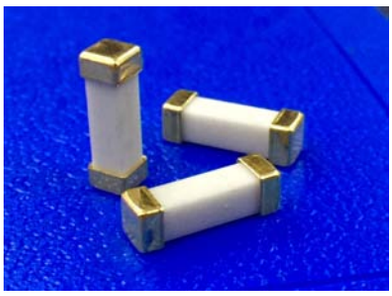
Type VF485

RoHS

Surface Mount Fuse

E356490



Electrical Characteristic

Cartridge Catalog Number	Ampere Rating [In]	Voltage Rating (V)	Nominal Resistance Cold Ohms	Nominal Melting I^2t A^2 Sec
VF485 .050	50 mA	250 V or less	0.7161	0.0423
VF485 .063	63 mA		0.4901	0.0562
VF485 .500	500mA		0.2375	0.2153
VF485 .800	800 mA		0.1256	0.9412
VF485 001	1 A		0.0773	0.5012
VF485 1.25	1.25 A		0.0582	1.0523
VF485 1.60	1.6 A		0.0458	1.5425
VF485 002	2 A		0.0358	2.4715
VF485 2.50	2.5 A		0.0294	3.6457
VF485 3.15	3.15 A		0.0214	8.0410
VF485 004	4 A		0.0175	13.791
VF485 005	5 A		0.0122	23.543
VF485 6.30	6.3 A		0.0092	42.187
VF485 007	7 A		0.0058	416.00
VF485 008	8 A		0.0046	154.71
VF485 010	10 A		0.0040	178.12
VF485 015	15 A		0.0030	206.12
VF485 020	20 A	125 V	0.0027	312.50
VF485 025	25 A		0.0021	429.34
VF485 030	30 A		0.0019	454.00
VF485 040	40 A	125 V 72 V	0.0018	612.41
VF485 050	50 A		0.0015	732.51
VF485 060	60 A		0.0006	869.45

Cold resistance measured at less than 10% of rated current at 25°C.

Approval

Recognized Component for Canada and U.S. 50mA~60A

Electrical Characteristic

Rated Current	1In MIN	2 In MAX
50mA~60A	4 hr	60 sec

Environmental Temperature at 25°C

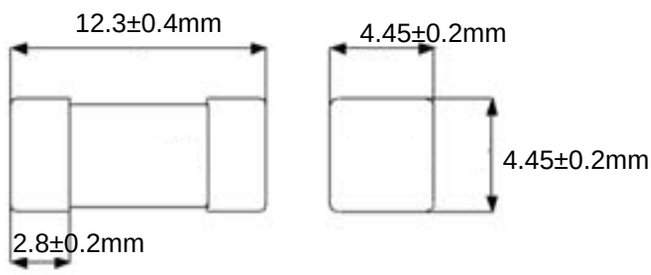
Interrupting Rating

50mA~16A: 500 amperes at 250V DC

50mA~60A: 300 amperes at 125V DC/AC

40A~60A: 600 amperes at 72V DC

Mechanical Dimension(mm)



Physical Specification

Material

Body: Ceramic

Terminations: Gold plated brass caps

Packaging

2500 pcs in 178mm dia.Reel.

Environmental Specification

Operating Temperature

-55°C to +125°C

Vibration

MIL-STD-202G, Method 201 (10-55 Hz, 0.06 inch, total excursion)

Salt Spray

MIL-STD-202G, Method 101, Test Condition B (48Hrs)

Insulation Resistance

MIL-STD-202G, Method 302, Test Condition A

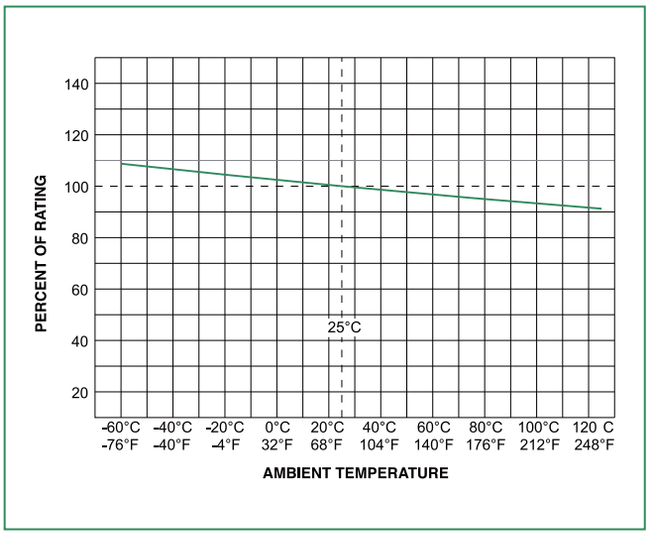
Resistance to Solder Heat

MIL-STD-202G, Method 210, Test Condition B (10sec, at 260°C)

Thermal Shock

MIL-STD-202G, Method 107, Test Condition B (-65°C to +125°C)

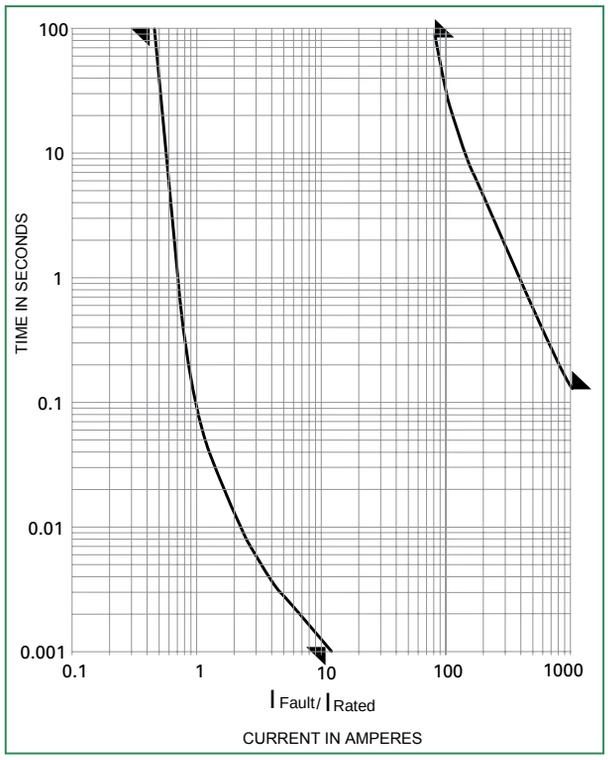
Temperature Rerating Curve



Note:

1. Derating depicted in this curve is in addition to the standard derating of 25% for continuous operation.

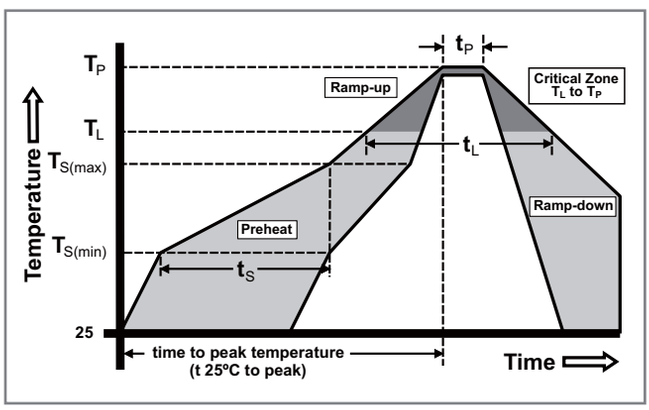
Average Time Current Curves



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 – 120 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 – 90 seconds
Peak Temperature (T_P)		$250^{+0/-5}$ °C
Time within 5°C of actual peak Temperature (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 Parameters	260°C Peak Temperature, 10 seconds max.

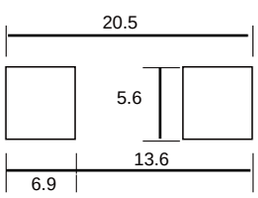


Part Numbering System

VF485 001

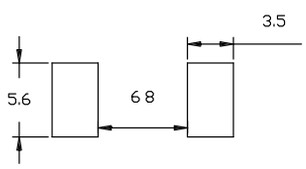
SERIES

AMP Code



WAVE SOLDER

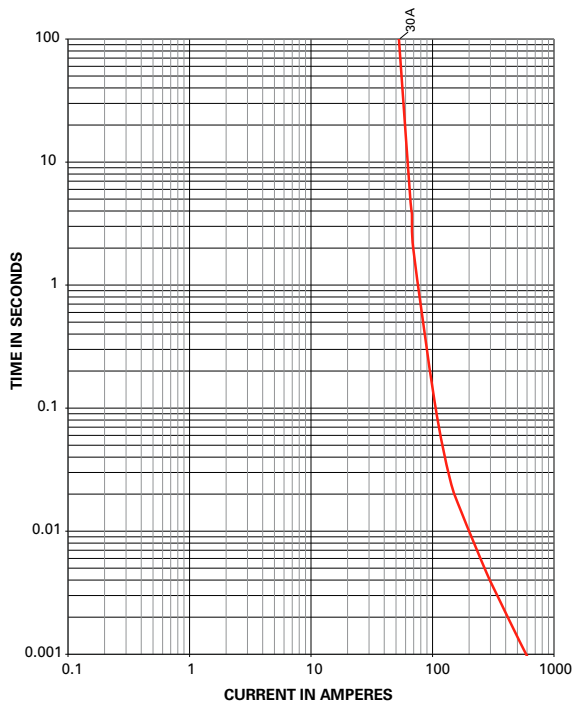
Recommended pad layout



REFLOW SOLDER

Min. copper layer thickness = 100µm
Min. copper trace width =20A, 30
10mm (20A, 30A) / 20mm (40A-50A)

Min. copper layer thickness = 100µm 60A

Alternate methods of thermal management may be used. In such cases, under normal operations, the maximum temperature of the fuse body should not exceed 90°C in a 25°C environment.

Average Time Current Curves