

**Bourns® SinglFuse™  
Thin Film Chip Fuse**

**Frequently Asked Questions**

**1. Is it necessary to derate a fuse for different temperatures?**

Yes, it is necessary and a derating chart is found on every data sheet. Fuses have different current carrying capabilities at different temperatures so the derating factor must be taken into account at the design stage.

**2. What is the maximum voltage a fuse can operate under?**

The Vmax rating of the fuse is the maximum rating, and the voltage should never exceed this limit.

**3. How should one select the proper fuse amperage?**

The fuse rating should be selected based on 125 % of the circuit's full load current.

**4. Fuses are RoHS compliant but do they contain any lead?**

Yes, the fuses contain approximately 42 PPM of lead, which is well under the 1000 PPM specified in the RoHS\* directive.

**5. What is the resistance tolerance?**

Resistance is dynamic as it is a function of temperature. A typical value is provided on every data sheet, which is measured at a current level less than 10 % of the rated current.

**6. What is opening time versus fault current chart?**

Again, this is dynamic as the higher the current the faster the device will open. A chart illustrating this is provided on every data sheet.

**7. Is there any indication to show when the fuses are activated to open?**

Sometimes a small puff of smoke will show the fuse has opened. Otherwise, the resistance of the fuse when measured will show an open circuit.

**8. What is the current range?**

Each family has its own current range:

- SF-0402F & SF-0402S Series ranges from 0.5 A~4.0 A
- SF-0603F & SF-0603S Series ranges from 0.5 A~5.0 A
- SF-1206F & SF-1206S Series ranges from 0.5 A~7.0 A.

**9. Are Bourns® SinglFuse™ devices compatible with other fuse makers?**

There is a full cross reference available to the major fuse suppliers.

**10. What is the comparison between a SinglFuse™ device and a TeleFuse™ device?**

Both are one-time fuses and both are surface mount devices. The telecom fuse is designed for telecom signal lines (e.g. tip & ring) while the SinglFuse™ device is designed for a wider spectrum of applications.

**11. Why would an application use a SinglFuse™ device instead of a Multifuse® Resettable fuse?**

Multifuse® products are resettable fuses and SinglFuse™ products are one-time acting fuses. Some applications require a physical break in the circuit if a short circuit arises and without the circuit resetting and continuing to operate. In this case, a SinglFuse™ device can be used. In applications where the circuit is to be protected from an overcurrent event and then continue operating after the event, a Multifuse® resettable fuse will be used.

**12. What will be the shelf life of a one time fuse?**

The shelf life is at least 2 years.

**13. What is the typical lead time for these products?**

If parts are not in stock, lead time is 4 weeks.

**14. What is the standard package?**

Tape & reel - 5K pieces for 1206 & 0603 sizes & 10K pieces for 0402 sizes.

**15. What is the minimum quantity for customization?**

100K

*\*RoHS Directive 2002/95/EC Jan 27 2003 including Annex.*