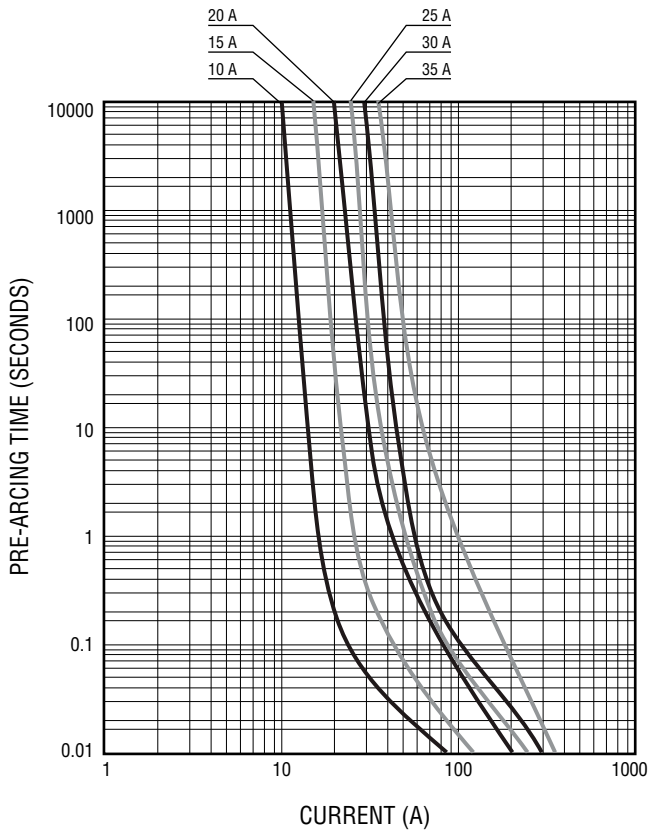


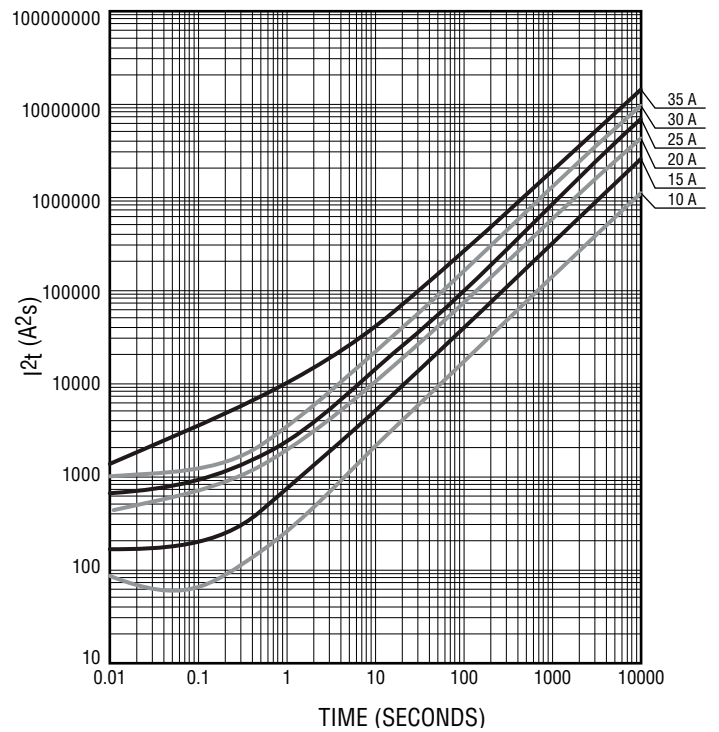
## SF-3812F-T Series – Fast Acting SMD Fuses

**BOURNS®**

Average Pre-Arcing Time vs. Current Curves



Average  $I^2t$  vs.  $t$  Curves



Specifications are subject to change without notice.

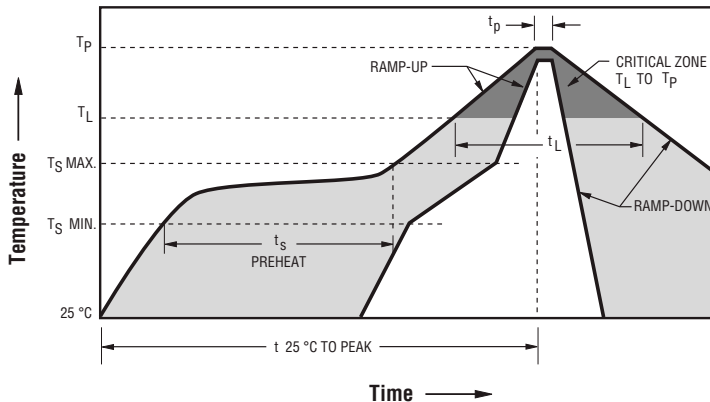
Users should verify actual device performance in their specific applications.

The products described herein and this document are subject to specific legal disclaimers as set forth on the last page of this document, and at [www.bourns.com/docs/legal/disclaimer.pdf](http://www.bourns.com/docs/legal/disclaimer.pdf).

## SF-3812F-T Series – Fast Acting SMD Fuses

**BOURNS®**

### Solder Reflow Recommendations

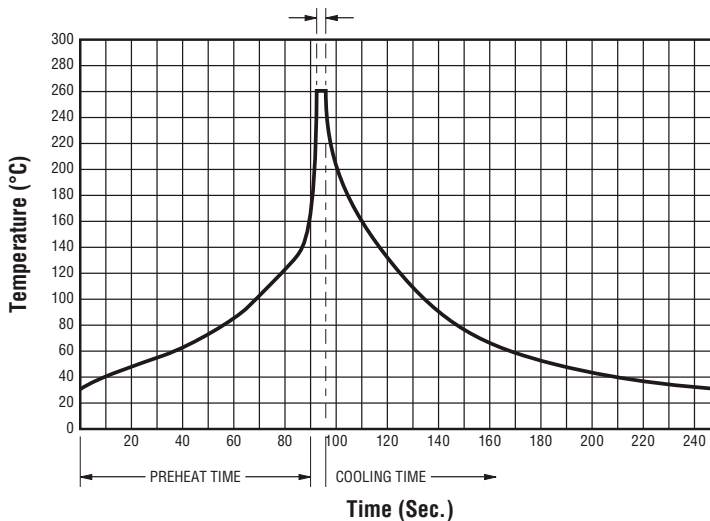


| Profile Feature                                                                                                                           | Pb-Free Assembly                   |
|-------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------|
| Preheat / Soak:<br>Temperature Min. ( $T_{smin}$ )<br>Temperature Max. ( $T_{smax}$ )<br>Time ( $t_s$ ) from ( $T_{smin}$ to $T_{smax}$ ) | 150 °C<br>200 °C<br>60~180 seconds |
| Ramp Up Rate ( $T_L$ to $T_P$ )                                                                                                           | 3 °C / second max.                 |
| Ramp Up Rate ( $T_{smax}$ to $T_L$ )                                                                                                      | 5 °C / second max.                 |
| Liquidous Temperature ( $T_L$ )<br>Time ( $t_L$ ) maintained above $T_L$                                                                  | 217 °C<br>60~150 seconds           |
| Peak Package Body Temperature ( $T_P$ )                                                                                                   | 260 °C +0/-5 °C                    |
| Time within 5 °C of actual peak temperature ( $T_P$ )                                                                                     | 10~30 seconds*                     |
| Ramp Down Rate ( $T_P$ to $T_L$ )                                                                                                         | 6 °C / second max.                 |
| Time 25 °C to Peak Temperature                                                                                                            | 8 minutes max.                     |
| Do not exceed                                                                                                                             | 260 °C                             |

\* Tolerance for peak profile temperature ( $T_P$ ) is defined as a supplier minimum and a user maximum.

### Solder Wave Recommendations

Peak Temperature (Dwell Time)



| Profile Feature                                                    | Pb-Free Assembly        |
|--------------------------------------------------------------------|-------------------------|
| Preheat:<br>Temperature Max. ( $T_{smax}$ )<br>Time (Min. to Max.) | 150 °C<br>60~90 seconds |
| Solder Pot Temperature                                             | 260 °C max.             |
| Solder Dwell Time                                                  | 2~3 seconds             |

Specifications are subject to change without notice.

Users should verify actual device performance in their specific applications.

The products described herein and this document are subject to specific legal disclaimers as set forth on the last page of this document, and at [www.bourns.com/docs/legal/disclaimer.pdf](http://www.bourns.com/docs/legal/disclaimer.pdf).