

## LA15QS Semiconductor Fuses

150 VAC • Very Fast Acting • 1 – 6000 Amperes



Littelfuse LA15QS series Semiconductor fuses were designed for the specific protection of diodes and other semiconductor devices rated 150VAC/DC. The LA15QS product line compact design is perfect for those applications that have limitations on available space.

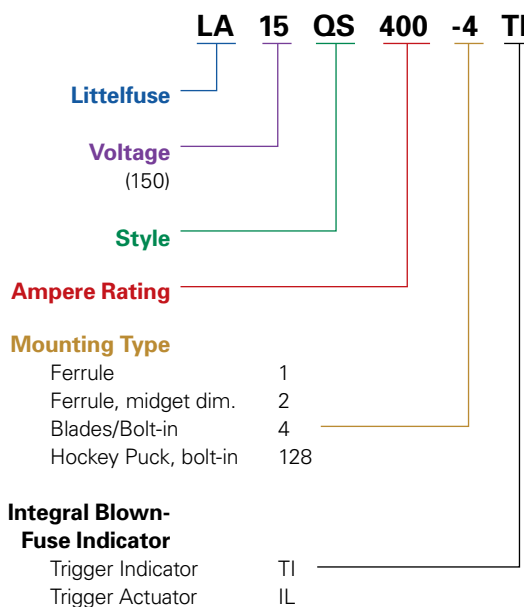
### Features

- Low  $I^2t$  minimizes damage to protected components on short-circuit.
- Controlled arc voltage reduces stress to circuit components during fuse clearing.
- Choice of mounting types provides options for unique termination requirements.
- Indicator options allow identification of blown fuses.

### Applications

Protection of heavy duty devices such as electromechanical rectifiers.

### Ordering Information



*Note: Mounting types and integral blown fuse indicators are optional for specified ratings.*

### Specifications

|                             |                                             |
|-----------------------------|---------------------------------------------|
| <b>Voltage Rating:</b>      | AC: 150 volts<br>DC: 150 volts              |
| <b>Interrupting Rating:</b> | 100,000 Amperes                             |
| <b>Ampere Range:</b>        | 1 – 6000 Amperes                            |
| <b>Approvals:</b>           | UL Recognized under the components program. |

Contact Littelfuse for characteristic curves.

## LA15QS Semiconductor Fuses

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### Catalog Numbers & Technical Data

| Ampere Rating | Littelfuse Catalog Number | Mounting Type | Maximum Clearing I <sup>2</sup> t @150 VAC (A <sup>2</sup> S x 10 <sup>3</sup> ) | Watts Loss @ Rated Current (W) |
|---------------|---------------------------|---------------|----------------------------------------------------------------------------------|--------------------------------|
| 1             | LA15QS1-2                 | 2             | 0.0002                                                                           | 0.68                           |
| 2             | LA15QS2-2                 | 2             | 0.001                                                                            | 1.3                            |
| 3             | LA15QS3-2                 | 2             | 0.003                                                                            | 1.7                            |
| 4             | LA15QS4-2                 | 2             | 0.007                                                                            | 2.1                            |
| 5             | LA15QS5-2                 | 2             | 0.012                                                                            | 2.8                            |
| 6             | LA15QS6-2                 | 2             | 0.022                                                                            | 3.1                            |
| 7             | LA15QS7-2                 | 2             | 0.011                                                                            | 2.2                            |
| 8             | LA15QS8-2                 | 2             | 0.015                                                                            | 2.5                            |
| 10            | LA15QS10-2                | 2             | 0.019                                                                            | 2.6                            |
| 12            | LA15QS12-2                | 2             | 0.030                                                                            | 3                              |
| 15            | LA15QS15-2                | 2             | 0.042                                                                            | 3                              |
| 20            | LA15QS20-2                | 2             | 0.072                                                                            | 4                              |
| 25            | LA15QS25-2                | 2             | 0.14                                                                             | 5.2                            |
| 30            | LA15QS30-2                | 2             | 0.25                                                                             | 5.6                            |
| 35            | LA15QS35-1                | 1             | 0.21                                                                             | 9                              |
| 40            | LA15QS40-1                | 1             | 0.28                                                                             | 10                             |
| 40            | LA15QS40-4TI              | 4TI           | 0.39                                                                             | 3.1                            |
| 45            | LA15QS45-1                | 1             | 0.34                                                                             | 12                             |
| 50            | LA15QS50-1                | 1             | 0.47                                                                             | 13                             |
| 50            | LA15QS50-4                | 4             | 0.64                                                                             | 4                              |
| 55            | LA15QS55-1                | 1             | Contact Factory                                                                  | Contact Factory                |
| 60            | LA15QS60-1                | 1             | 0.94                                                                             | 14                             |
| 70            | LA15QS70-4                | 4             | 2                                                                                | 5.6                            |
| 70            | LA15QS70-4TI              | 4TI           | 2                                                                                | 5.6                            |
| 80            | LA15QS80-4                | 4             | 2.5                                                                              | 8                              |
| 80            | LA15QS80-4TI              | 4TI           | 2.5                                                                              | 8                              |
| 90            | LA15QS90-4                | 4             | 3.1                                                                              | 9                              |
| 100           | LA15QS100-4               | 4             | 3.6                                                                              | 10                             |
| 100           | LA15QS100-4TI             | 4TI           | 3.6                                                                              | 10                             |
| 130           | LA15QS130-4               | 4             | 5.3                                                                              | 14                             |
| 130           | LA15QS130-4TI             | 4TI           | 5.3                                                                              | 14                             |
| 150           | LA15QS150-4               | 4             | 6.8                                                                              | 16                             |
| 150           | LA15QS150-4IL             | 4IL           | 6.8                                                                              | 16                             |
| 150           | LA15QS150-4TI             | 4TI           | 6.8                                                                              | 16                             |
| 200           | LA15QS200-4               | 4             | 9                                                                                | 22                             |
| 200           | LA15QS200-4IL             | 4IL           | 9                                                                                | 22                             |
| 250           | LA15QS250-4               | 4             | 15                                                                               | 22                             |

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|---------------|---------------------------|---------------|----------------------------------------------------------------------------------|--------------------------------|
| 250           | LA15QS250-4TI             | 4TI           | 15                                                                               | 27                             |
| 300           | LA15QS300-4               | 4             | 22                                                                               | 33                             |
| 300           | LA15QS300-4IL             | 4IL           | 22                                                                               | 33                             |
| 300           | LA15QS300-4TL             | 4TI           | 22                                                                               | 33                             |
| 350           | LA15QS350-4               | 4             | 32                                                                               | 40                             |
| 350           | LA15QS350-4TI             | 4TI           | 32                                                                               | 40                             |
| 400           | LA15QS400-4               | 4             | 40                                                                               | 45                             |
| 400           | LA15QS400-4IL             | 4IL           | 40                                                                               | 45                             |
| 400           | LA15QS400-4TI             | 4TI           | 40                                                                               | 45                             |
| 450           | LA15QS450-4               | 4             | 50                                                                               | 50                             |
| 450           | LA15QS450-4IL             | 4IL           | 50                                                                               | 50                             |
| 500           | LA15QS500-4               | 4             | 90                                                                               | 30                             |
| 500           | LA15QS500-4IL             | 4IL           | 90                                                                               | 30                             |
| 600           | LA15QS600-4               | 4             | 130                                                                              | 35                             |
| 600           | LA15QS600-4IL             | 4IL           | 130                                                                              | 35                             |
| 800           | LA15QS800-4               | 4             | 290                                                                              | 57                             |
| 1000          | LA15QS1000-4              | 4             | 520                                                                              | 75                             |
| 1000          | LA15QS1000-4IL            | 4IL           | 520                                                                              | 75                             |
| 1000          | LA15QS1000-4TI            | 4TI           | 520                                                                              | 75                             |
| 1000          | LA15QS1000-128            | 128           | 540                                                                              | 88                             |
| 1000          | LA15QS1000-128IL          | 128IL         | 540                                                                              | 88                             |
| 1200          | LA15QS1200-128            | 128           | 680                                                                              | 100                            |
| 1200          | LA15QS1200-128IL          | 128IL         | 680                                                                              | 100                            |
| 1500          | LA15QS1500-128            | 128           | 1200                                                                             | 130                            |
| 1500          | LA15QS1500-128IL          | 128IL         | 1200                                                                             | 130                            |
| 2000          | LA15QS2000-128            | 128           | 1900                                                                             | 165                            |
| 2000          | LA15QS2000-128IL          | 128IL         | 1900                                                                             | 165                            |
| 2500          | LA15QS2500-128            | 128           | 3200                                                                             | 195                            |
| 2500          | LA15QS2500-128IL          | 128IL         | 3200                                                                             | 195                            |
| 3000          | LA15QS3000-128            | 128           | 4800                                                                             | 240                            |
| 3000          | LA15QS3000-128IL          | 128IL         | 4800                                                                             | 240                            |
| 3500          | LA15QS3500-128            | 128           | 6500                                                                             | 260                            |
| 4000          | LA15QS4000-128            | 128           | 8500                                                                             | 270                            |
| 4000          | LA15QS4000-128IL          | 128IL         | 8500                                                                             | 270                            |
| 5000          | LA15QS5000-128            | 128           | Contact Factory                                                                  | Contact Factory                |
| 6000          | LA15QS6000-128            | 128           | Contact Factory                                                                  | Contact Factory                |

Figure 1

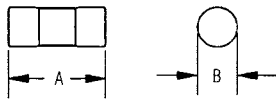


Figure 2

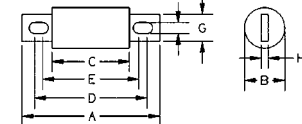


Figure 3

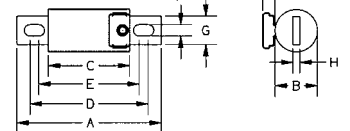


Figure 4

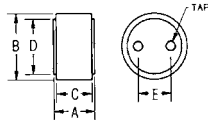


Figure 5

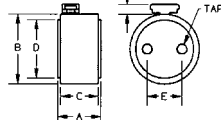


Figure 6

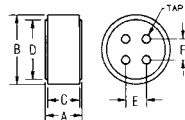


Figure 7

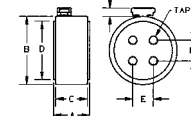
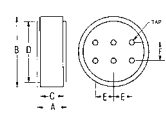


Figure 8



### Dimensions

Dimensions for reference only.

| Amperes     | Mount. Type   | Fig. No. | Dimensions in Inches (mm in parentheses) |             |             |             |             |             |             |            | Tap             |
|-------------|---------------|----------|------------------------------------------|-------------|-------------|-------------|-------------|-------------|-------------|------------|-----------------|
|             |               |          | A                                        | B           | C           | D           | E           | F           | G           | H          |                 |
| 1 – 30      | 2             | 1        | 1.50 (38.1)                              | 0.41 (10.4) | –           | –           | –           | –           | –           | –          | –               |
| 35 – 60     | 1             | 1        | 2.00 (50.8)                              | 0.81 (20.6) | –           | –           | –           | –           | –           | –          | –               |
| 70 – 450    | 4, 4TI*, 4IL* | 2, 3*    | 2.66 (67.6)                              | 1.13 (28.7) | 1.16 (29.5) | 2.19 (55.6) | 1.91 (48.5) | 0.31 (7.9)  | 0.88 (22.4) | 0.19 (4.8) | –               |
| 500 – 1000  | 4, 4TI*, 4IL* | 2, 3*    | 3.50 (88.9)                              | 1.50 (38.1) | 1.25 (31.8) | 2.56 (65.0) | 1.94 (49.3) | 0.41 (10.4) | 1.00 (25.4) | 0.25 (6.4) | –               |
| 750 – 2000  | 128, 128IL*   | 4, 5*    | 1.88 (47.9)                              | 2.00 (50.8) | 1.63 (41.4) | 1.75 (44.5) | 1.00 (25.4) | –           | –           | –          | 3/8-24-1/2 deep |
| 2500 – 3000 | 128, 128IL*   | 4, 5*    | 1.88 (47.9)                              | 3.00 (76.2) | 1.63 (41.4) | 2.50 (63.5) | 1.50 (38.1) | –           | –           | –          | 1/2-20-1/2 deep |
| 3500 – 4000 | 128, 128IL*   | 6, 7*    | 1.88 (47.9)                              | 3.50 (88.9) | 1.63 (41.4) | 3.00 (76.2) | 1.06 (27.0) | 1.06 (27.0) | –           | –          | 1/2-20-1/2 deep |
| 5000 – 6000 | 128           | 8        | 2.38 (60.5)                              | 5.75 (146)  | 1.88 (47.7) | 5.00 (127)  | 1.50 (38.1) | 1.50 (38.1) | –           | –          | 1/2-20-1/2 deep |

\* Optional Trigger Actuator (IL)