

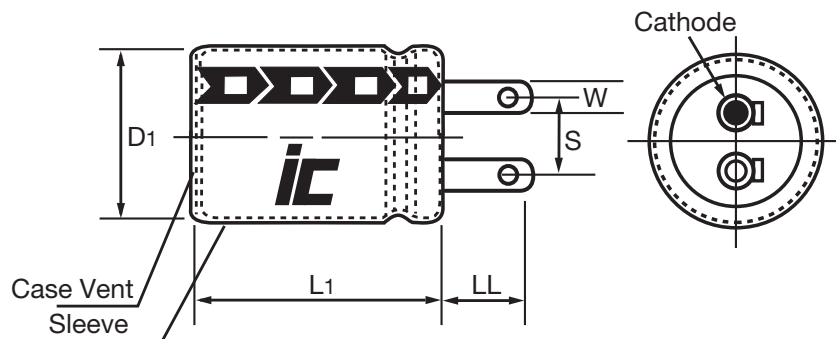
# FSB

## +55°C Photoflash Aluminum Electrolytic Capacitors



- Signal Lights
- JIS 2365 Compliant
- Snap Mount
- Emergency and Security Lights
- Long Life
- Low Leakage Current

|   |       |   |   |  |  |
|---|-------|---|---|--|--|
| Operating Temperature Range               |       | -20°C to +55°C  |   |  |  |
| Capacitance Tolerance                     |       | -10 to +20% at 120Hz, 25°C  |   |  |  |
| Surge Voltage                             | WVDC  | 330   | 360   |  |  |
|   | SVDC  | 350   | 390   |  |  |
| Dissipation Factor                        | Cap   | C≤600μF   | C>600μF   |  |  |
|   | tan δ | 0.07  | 0.1   |  |  |
| Leakage Current @25°C, Rated WVDC applied |       | Time  | 5 minutes   |  |  |
|   |       |   | 1°C   |  |  |
| Charge/Discharge Test                     |       | 5000 flashes at rated voltage applied at 5-35°C repeating every 30 seconds thru a Xe flash tube having a discharge resistance of 0.7-1.0Ω |   |  |  |
|   |       | Capacitance change<br>Dissipation factor<br>Leakage current   | ≤ 10% of initial measured value<br>≤ 150% of maximum specified value<br>≤ 150% of maximum specified value |  |  |
| Shelf Life Test                           |       | 500 hours at 70°C with no voltage applied   |   |  |  |
|   |       | Capacitance change<br>Dissipation factor<br>Leakage current   | ≤ 10% of initial measured value<br>≤ 150% of maximum specified value<br>≤ 150% of maximum specified value |  |  |



|                          |     |     |     |     |     |
|--------------------------|-----|-----|-----|-----|-----|
| <b>D</b>                 | 22  | 25  | 30  | 35  | 35  |
| <b>a</b>                 | 0.5 | 1.0 | 1.0 | 1.0 | 1.0 |
| <b>D<sub>1</sub></b>     | D±a | D±a | D±a | D±a | D±a |
| <b>L<sub>1</sub></b>     | L+3 | L+3 | L+3 | L+3 | L+3 |
| <b>LL<sub>±2mm</sub></b> | 5.0 | 5.5 | 5.5 | 5.5 | 5.5 |
| <b>S<sub>±2mm</sub></b>  | 10  | 10  | 10  | 10  | 10  |
| <b>W</b>                 | 2.6 | 3.0 | 3.0 | 3.0 | 3.0 |

# FSB

+55°C, Snap in

| Capacitance (µF) | WVDC | IC PART NUMBER | Maximum ESR (mΩ)<br>120 Hz,<br>+20°C | LC (µA)<br>20°C,<br>5 minutes | Dims DxL (mm) |
|------------------|------|----------------|--------------------------------------|-------------------------------|---------------|
| 220              | 330  | 227FSB330XBD   | 0.469                                | 220                           | 22x30         |
| 220              | 330  | 227FSB330XGBD  | 0.469                                | 220                           | 22x40         |
| 220              | 360  | 227FSB360XBE   | 0.469                                | 220                           | 22x35         |
| 220              | 360  | 227FSB360XCD   | 0.469                                | 220                           | 25x30         |
| 220              | 360  | 227FSB360XGBE  | 0.469                                | 220                           | 22x35         |
| 220              | 360  | 227FSB360XGCD  | 0.469                                | 220                           | 25x30         |
| 330              | 330  | 337FSB330XBF   | 0.313                                | 330                           | 22x40         |
| 330              | 330  | 337FSB330XCD   | 0.313                                | 330                           | 25x30         |
| 330              | 330  | 337FSB330XGBF  | 0.313                                | 330                           | 22x40         |
| 330              | 330  | 337FSB330XGCD  | 0.313                                | 330                           | 25x30         |
| 330              | 360  | 337FSB360XBG   | 0.313                                | 330                           | 22x45         |
| 330              | 360  | 337FSB360XCF   | 0.313                                | 330                           | 25x40         |
| 330              | 360  | 337FSB360XDE   | 0.313                                | 330                           | 30x35         |
| 330              | 360  | 337FSB360XGBG  | 0.313                                | 330                           | 22x45         |
| 330              | 360  | 337FSB360XGCF  | 0.313                                | 330                           | 25x40         |
| 330              | 360  | 337FSB360XGDE  | 0.313                                | 330                           | 30x35         |
| 470              | 330  | 477FSB330XBH   | 0.219                                | 470                           | 22x50         |
| 470              | 330  | 477FSB330XCF   | 0.219                                | 470                           | 25x40         |
| 470              | 330  | 477FSB330XDF   | 0.219                                | 470                           | 30x35         |
| 470              | 330  | 477FSB330XGBH  | 0.219                                | 470                           | 22x50         |
| 470              | 330  | 477FSB330XGCF  | 0.219                                | 470                           | 25x40         |
| 470              | 330  | 477FSB330XGDE  | 0.219                                | 470                           | 30x35         |
| 470              | 360  | 477FSB360XBP   | 0.219                                | 470                           | 22x55         |
| 470              | 360  | 477FSB360XCP   | 0.219                                | 470                           | 22x55         |
| 470              | 360  | 477FSB360XDG   | 0.219                                | 470                           | 30x35         |
| 470              | 360  | 477FSB360XGBP  | 0.219                                | 470                           | 22x55         |
| 470              | 360  | 477FSB360XGCP  | 0.219                                | 470                           | 25x55         |
| 470              | 360  | 477FSB360XGDG  | 0.219                                | 470                           | 30x45         |
| 680              | 330  | 687FSB330XBZ   | 0.217                                | 680                           | 22x60         |
| 680              | 330  | 687FSB330XCH   | 0.217                                | 680                           | 25x50         |
| 680              | 330  | 687FSB330XDG   | 0.217                                | 680                           | 30x45         |
| 680              | 330  | 687FSB330XEF   | 0.217                                | 680                           | 35x40         |
| 680              | 330  | 687FSB330XGBZ  | 0.217                                | 680                           | 22x60         |
| 680              | 330  | 687FSB330XGCH  | 0.217                                | 680                           | 25x50         |
| 680              | 330  | 687FSB330XGDG  | 0.217                                | 680                           | 30x45         |
| 680              | 330  | 687FSB330XGEF  | 0.217                                | 680                           | 35x40         |
| 680              | 360  | 687FSB360XBJ   | 0.217                                | 680                           | 22x65         |
| 680              | 360  | 687FSB360XCJ   | 0.217                                | 680                           | 25x65         |
| 680              | 360  | 687FSB360XDP   | 0.217                                | 680                           | 30x55         |
| 680              | 360  | 687FSB360XEH   | 0.217                                | 680                           | 35x50         |
| 680              | 360  | 687FSB360XGBJ  | 0.217                                | 680                           | 22x65         |
| 680              | 360  | 687FSB360XGDP  | 0.217                                | 680                           | 30x55         |
| 680              | 360  | 687FSB360XGEH  | 0.217                                | 680                           | 35x50         |
| 680              | 360  | 687FSB260XGCI  | 0.217                                | 680                           | 25x65         |
| 820              | 330  | 827FSB330XBQ   | 0.18                                 | 820                           | 22x75         |
| 820              | 330  | 827FSB330XCZ   | 0.18                                 | 820                           | 25x60         |
| 820              | 330  | 827FSB330XDP   | 0.18                                 | 820                           | 30x55         |
| 820              | 330  | 827FSB330XEG   | 0.18                                 | 820                           | 35x45         |
| 820              | 330  | 827FSB330XGBQ  | 0.18                                 | 820                           | 22x75         |
| 820              | 330  | 827FSB330XGCI  | 0.18                                 | 820                           | 25x60         |
| 820              | 330  | 827FSB330XGDP  | 0.18                                 | 820                           | 30x55         |
| 820              | 330  | 827FSB330XGEG  | 0.18                                 | 820                           | 35x45         |
| 820              | 360  | 827FSB360CQ    | 0.18                                 | 820                           | 25x75         |
| 820              | 360  | 827FSB360XBQ   | 0.18                                 | 820                           | 22x75         |

| Capacitance (µF) | WVDC | IC PART NUMBER | Maximum ESR (mΩ)<br>120 Hz,<br>+20°C | LC (µA)<br>20°C,<br>5 minutes | Dims DxL (mm) |
|------------------|------|----------------|--------------------------------------|-------------------------------|---------------|
| 820              | 360  | 827FSB360XDJ   | 0.18                                 | 820                           | 30x65         |
| 820              | 360  | 827FSB360XEP   | 0.18                                 | 820                           | 35x55         |
| 820              | 360  | 827FSB360XGBQ  | 0.18                                 | 820                           | 25x75         |
| 820              | 360  | 827FSB360XGCQ  | 0.18                                 | 820                           | 25x75         |
| 820              | 360  | 827FSB360XGDJ  | 0.18                                 | 820                           | 30x65         |
| 820              | 360  | 827FSB360XGEP  | 0.18                                 | 820                           | 35x55         |
| 1000             | 330  | 108FSB330XDJ   | 0.147                                | 1000                          | 30x65         |
| 1000             | 330  | 108FSB360XCR   | 0.147                                | 1000                          | 25x85         |
| 1000             | 330  | 108FSB330XGEJ  | 0.147                                | 1000                          | 35x55         |
| 1000             | 330  | 108FSB330XEP   | 0.147                                | 1000                          | 35x55         |
| 1000             | 330  | 108FSB330XGCQ  | 0.147                                | 1000                          | 25x75         |
| 1000             | 330  | 108FSB330XGQJ  | 0.147                                | 1000                          | 25x75         |
| 1000             | 330  | 108FSB330XDJ   | 0.147                                | 1000                          | 30x65         |
| 1000             | 360  | 108FSB360XDQ   | 0.147                                | 1000                          | 30x75         |
| 1000             | 360  | 108FSB360XEZ   | 0.147                                | 1000                          | 35x60         |
| 1000             | 360  | 108FSB360XGCR  | 0.147                                | 1000                          | 25x85         |
| 1000             | 360  | 108FSB360XGDQ  | 0.147                                | 1000                          | 30x75         |
| 1000             | 360  | 108FSB360XGEJ  | 0.147                                | 1000                          | 35x60         |
| 1200             | 330  | 128FSB330XDQ   | 0.123                                | 1200                          | 30x75         |
| 1200             | 330  | 128FSB330XEZ   | 0.123                                | 1200                          | 35x60         |
| 1200             | 330  | 128FSB330XGDQ  | 0.123                                | 1200                          | 30x75         |
| 1200             | 330  | 128FSB330XGEZ  | 0.123                                | 1200                          | 35x60         |
| 1200             | 360  | 128FSB360XDR   | 0.123                                | 1200                          | 30x85         |
| 1200             | 360  | 128FSB360XEJ   | 0.123                                | 1200                          | 35x65         |
| 1200             | 360  | 128FSB360XFZ   | 0.123                                | 1200                          | 40x60         |
| 1200             | 360  | 128FSB360XGDR  | 0.123                                | 1200                          | 30x85         |
| 1200             | 360  | 128FSB360XGEJ  | 0.123                                | 1200                          | 35x65         |
| 1200             | 360  | 128FSB360XGFZ  | 0.123                                | 1200                          | 40x60         |
| 1500             | 330  | 158FSB330XEJ   | 0.123                                | 1500                          | 35x65         |
| 1500             | 330  | 158FSB330XFZ   | 0.123                                | 1500                          | 40x60         |
| 1500             | 330  | 158FSB330XGFZ  | 0.123                                | 1500                          | 40x60         |
| 1800             | 330  | 188FSB330XEK   | 0.1228                               | 1800                          | 35x70         |
| 1800             | 330  | 188FSB330XFJ   | 0.1228                               | 1800                          | 40x65         |
| 1800             | 330  | 188FSB330XGEK  | 0.1228                               | 1800                          | 35x70         |
| 1800             | 330  | 188FSB330XGFJ  | 0.1228                               | 1800                          | 40x65         |
| 1800             | 360  | 188FSB360XEK   | 0.1228                               | 1800                          | 35x70         |
| 1800             | 360  | 188FSB360XFJ   | 0.1228                               | 1800                          | 40x65         |
| 1800             | 360  | 188FSB360XGEK  | 0.1228                               | 1800                          | 35x70         |
| 1800             | 360  | 188FSB360XGFJ  | 0.1228                               | 1800                          | 40x65         |
| 2200             | 330  | 228FSB330XEQ   | 0.067                                | 2200                          | 35x75         |
| 2200             | 330  | 228FSB330XFK   | 0.067                                | 2200                          | 40x70         |
| 2200             | 330  | 228FSB330XGEQ  | 0.1005                               | 2200                          | 35x75         |
| 2200             | 330  | 228FSB330XGFK  | 0.1005                               | 2200                          | 40x70         |
| 2200             | 360  | 228FSB360XEQ   | 0.1005                               | 2200                          | 35x75         |
| 2200             | 360  | 228FSB360XFK   | 0.1005                               | 2200                          | 40x70         |
| 2200             | 360  | 228FSB360XGEQ  | 0.1005                               | 2200                          | 35x75         |
| 2200             | 360  | 228FSB360XGFK  | 0.1005                               | 2200                          | 40x70         |
| 2500             | 330  | 258FSB330XFQ   | 0.0884                               | 2500                          | 40x75         |
| 2500             | 330  | 258FSB330XGFK  | 0.0884                               | 2500                          | 40x75         |
| 2500             | 360  | 258FSB360EM    | 0.0884                               | 2500                          | 35x80         |
| 2500             | 360  | 258FSB360FM    | 0.0884                               | 2500                          | 40x80         |
| 2500             | 360  | 258FSB360GEM   | 0.0884                               | 2500                          | 35x80         |
| 2500             | 360  | 258FSB360XGFM  | 0.0884                               | 2500                          | 40x80         |