



Micro Commercial Components  
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## FST8230EL

### Features

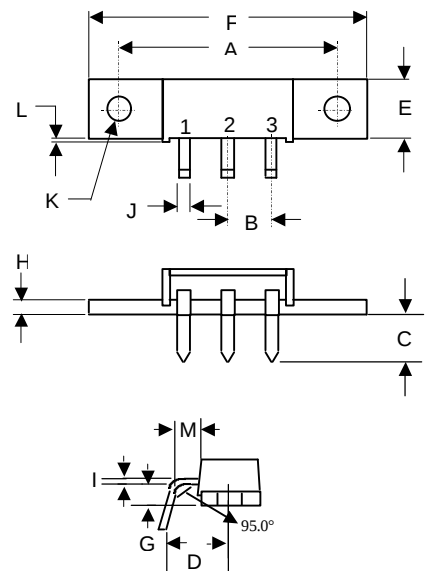
- Guard ring for transient protection
- Low Forward Voltage
- High surge capacity
- High current capability

### Maximum Ratings

- Operating Temperature: -40°C to +150°C
- Storage Temperature: -40°C to +150°C
- Thermal Resistance; 0.42°C/W Junction To Case

| MCC Part Number | Maximum Recurrent Peak Reverse Voltage | Maximum RMS Voltage | Maximum DC Blocking Voltage |
|-----------------|----------------------------------------|---------------------|-----------------------------|
| FST8230EL       | 30V                                    | -----               | 30V                         |

### MINIMOD



### Electrical Characteristics @ 25°C Unless Otherwise Specified

|                                                         |             |              |                                                       |
|---------------------------------------------------------|-------------|--------------|-------------------------------------------------------|
| Average Forward Current                                 | $I_{F(AV)}$ | 80 A         | $T_C = 110^\circ\text{C}$                             |
| Peak Forward Surge Current                              | $I_{FSM}$   | 800A         | 8.3ms, half sine                                      |
| Maximum Instantaneous Forward Voltage<br>82CNQ030A      | $V_F$       | .47 V        | $I_{FM} = 40.0\text{A};$<br>$T_J = 25^\circ\text{C}$  |
| Maximum DC Reverse Current At Rated DC Blocking Voltage | $I_R$       | 5mA<br>280mA | $T_J = 25^\circ\text{C}$<br>$T_J = 125^\circ\text{C}$ |

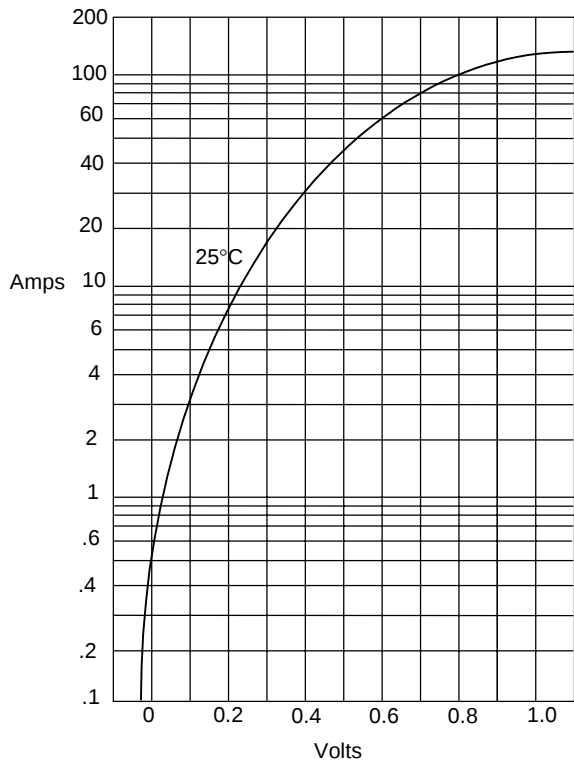
| DIM | INCHES |       | MM    |       | NOTE |
|-----|--------|-------|-------|-------|------|
|     | MIN    | MAX   | MIN   | MAX   |      |
| A   | 1.180  | 1.195 | 29.97 | 30.35 |      |
| B   | .200   | REF   | 5.08  | REF   | 2PL  |
| C   | .252   | ----- | 6.40  | ----- |      |
| D   | .267   | .307  | 6.80  | 7.80  |      |
| E   | .350   | .370  | 8.89  | 9.40  |      |
| F   | 1.490  | 1.510 | 37.85 | 38.35 |      |
| G   | .130   | ----- | 3.30  | ----- | REF  |
| H   | .088   | .098  | 2.24  | 2.49  |      |
| I   | .031   | ----- | 0.80  | ----- | REF  |
| J   | .065   | .085  | 1.65  | 2.16  |      |
| K   | .151   | .161  | 3.84  | 4.09  | Ø    |
| L   | .015   | .025  | 0.38  | 0.64  |      |
| M   | .098   | ----- | 2.50  | ----- | REF  |

\*Pulse Test: Pulse Width 300µsec, Duty Cycle 2%

\* Junction Temperature (maximum):+ 150°C

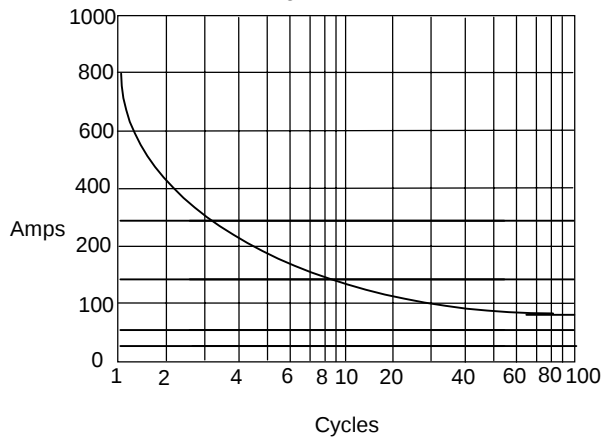
## FST8230EL

Figure 1  
Typical Forward Characteristics



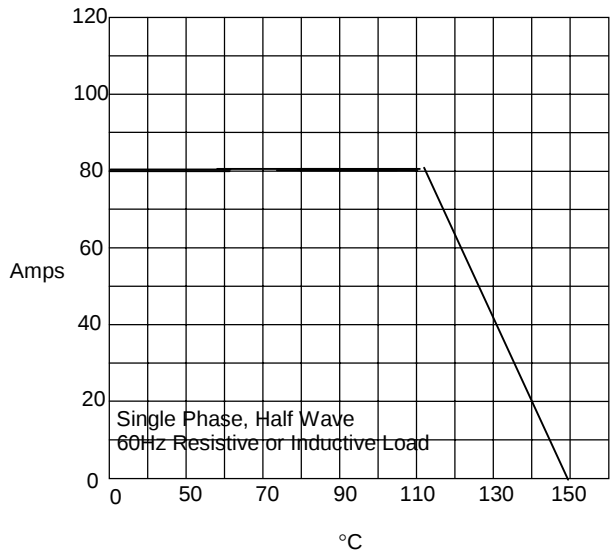
Instantaneous Forward Current - Amperes versus  
Instantaneous Forward Voltage - Volts

Figure 3  
Peak Forward Surge Current



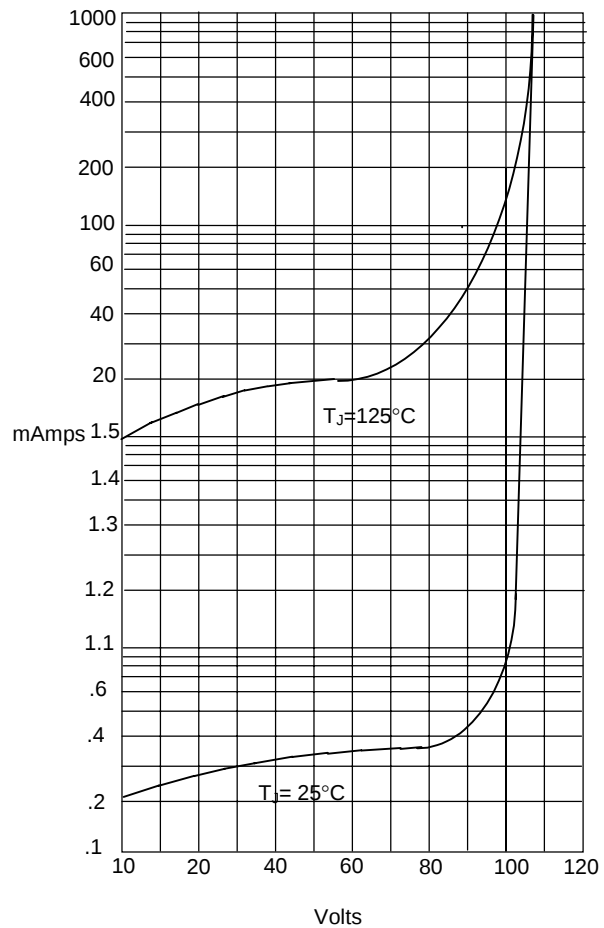
Peak Forward Surge Current - Amperes versus  
Number Of Cycles At 60Hz - Cycles

Figure 2  
Forward Derating Curve



Average Forward Rectified Current - Amperes versus  
Case Temperature - °C

Figure 4  
Typical Reverse Characteristics



Instantaneous Reverse Leakage Current - MicroAmperes versus  
Percent Of Rated Peak Reverse Voltage - Volts