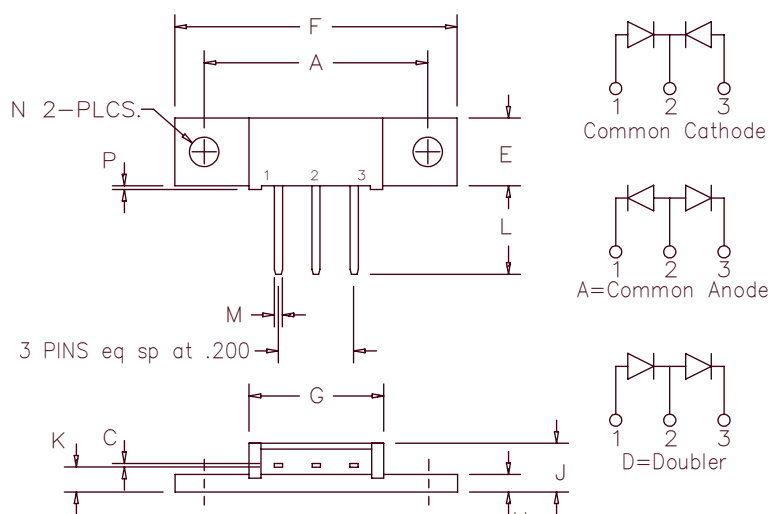


# Schottky MiniMod FST6230



| Dim. | Inches  |         | Millimeter |         | Notes |
|------|---------|---------|------------|---------|-------|
|      | Minimum | Maximum | Minimum    | Maximum |       |
| A    | 1.180   | 1.195   | 29.97      | 30.35   |       |
| C    | .025    | .035    | 0.64       | 0.89    |       |
| E    | .350    | .370    | 8.89       | 9.40    |       |
| F    | 1.490   | 1.510   | 37.85      | 38.35   |       |
| G    | .695    | .715    | 17.65      | 18.16   |       |
| H    | .088    | .098    | 2.24       | 2.49    |       |
| J    | .240    | .260    | 6.10       | 6.60    |       |
| K    | .115    | .135    | 2.92       | 3.43    |       |
| L    | .460    | .480    | 11.68      | 12.19   |       |
| M    | .034    | .046    | 0.86       | 1.17    |       |
| N    | .151    | .161    | 3.84       | 4.09    | Dia.  |
| P    | .015    | .025    | 0.38       | 0.64    |       |

| Microsemi<br>Catalog Number | Industry<br>Part Number | Working<br>Peak Reverse<br>Voltage | Repetitive<br>Peak Reverse<br>Voltage |
|-----------------------------|-------------------------|------------------------------------|---------------------------------------|
| FST6230*                    | 62CNQ030                | 30V                                | 30V                                   |

\*Add the Suffix A for Common Anode, D for Doubler

- Schottky Barrier Rectifier
- Guard Ring Protection
- 2X30 Amperes avg.
- 150°C Junction Temperature
- Reverse Energy Tested
- Low Forward Voltage
- ROHS Compliant

## Electrical Characteristics

|                                             |                     |                                                                    |
|---------------------------------------------|---------------------|--------------------------------------------------------------------|
| Average forward current per pkg             | $I_F(AV)$ 60 Amps   | $T_C = 124^\circ C$ , Square wave, $R_{\theta JC} = 0.5^\circ C/W$ |
| Average forward current per leg             | $I_F(AV)$ 30 Amps   | $T_C = 124^\circ C$ , Square wave, $R_{\theta JC} = 1.0^\circ C/W$ |
| Maximum surge current per leg               | $I_{FSM}$ 800 Amps  | 8.3 ms, half sine, $T_J = 150^\circ C$                             |
| Max repetitive peak reverse current per leg | $I_R(OV)$ 2 Amps    | $f = 1$ KHZ, $25^\circ C$ , $1\mu sec$ square wave                 |
| Max peak forward voltage per leg            | $V_{FM}$ 0.40 Volts | $I_{FM} = 30A$ : $T_J = 150^\circ C^*$                             |
| Max peak forward voltage per leg            | $V_{FM}$ 0.47 Volts | $I_{FM} = 30A$ : $T_J = 25^\circ C^*$                              |
| Max peak reverse current per leg            | $I_{RM}$ 300 mA     | $V_{RRM}$ , $T_J = 125^\circ C^*$                                  |
| Typical reverse current per leg             | $I_{RM}$ 2.0 mA     | $V_{RRM}$ , $T_J = 25^\circ C$                                     |
| Typical junction capacitance per leg        | $C_J$ 2400 pF       | $V_R = 5.0V$ , $T_C = 25^\circ C$                                  |

\*Pulse test: Pulse width 300 $\mu sec$ , Duty cycle 2%

## Thermal and Mechanical Characteristics

|                                      |                 |                                  |
|--------------------------------------|-----------------|----------------------------------|
| Storage temp range                   | $T_{STG}$       | $-55^\circ C$ to $175^\circ C$   |
| Operating junction temp range        | $T_J$           | $-55^\circ C$ to $150^\circ C$   |
| Max thermal resistance per leg       | $R_{\theta JC}$ | $1.0^\circ C/W$ Junction to case |
| Max thermal resistance per pkg       | $R_{\theta JC}$ | $0.5^\circ C/W$ Junction to case |
| Typical thermal resistance (greased) | $R_{\theta CS}$ | $0.3^\circ C/W$ Case to sink     |
| Mounting Base Torque                 |                 | 10 inch pounds maximum           |
| Weight                               |                 | 0.3 ounce (8.4 grams) typical    |

# FST6230

Figure 1  
Typical Forward Characteristics – Per Leg

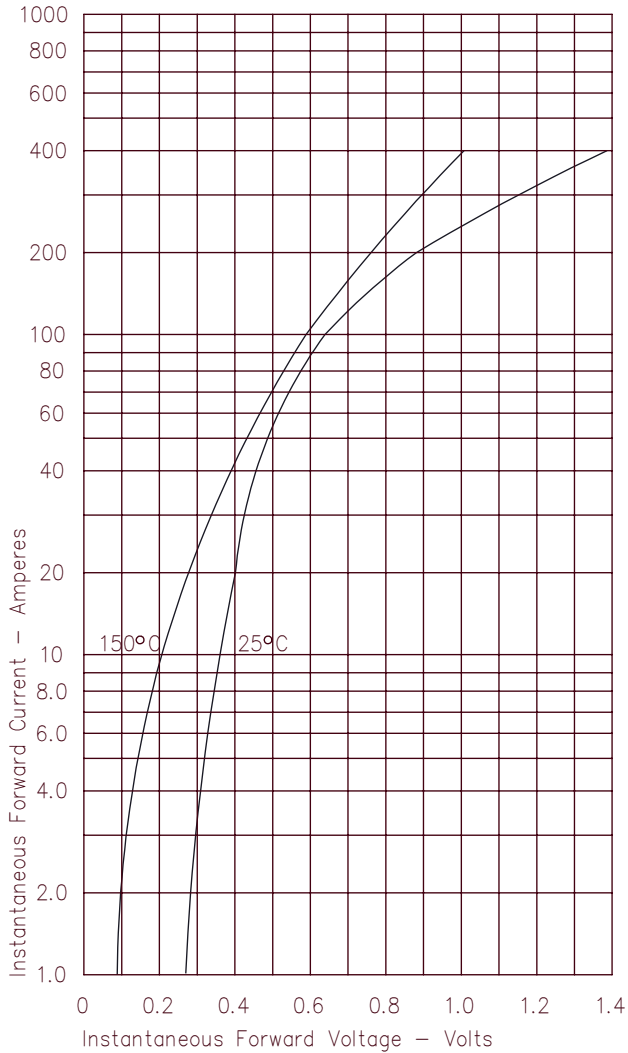


Figure 2  
Typical Reverse Characteristics – Per Leg

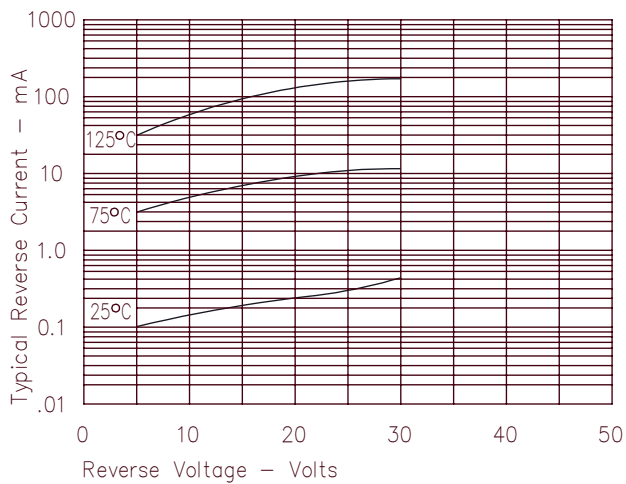


Figure 3  
Typical Junction Capacitance – Per Leg

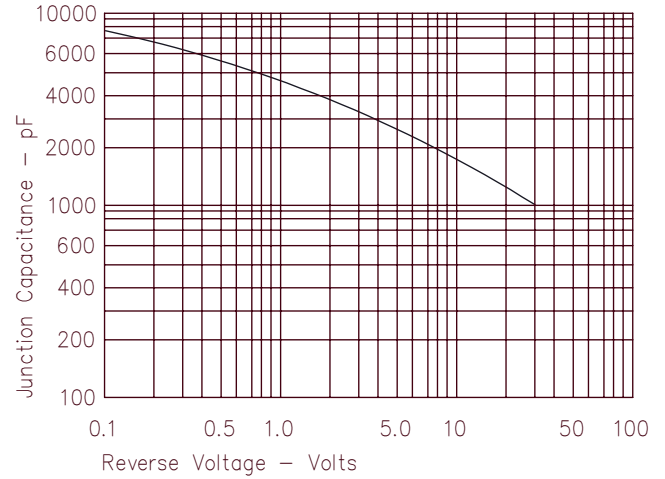


Figure 4  
Forward Current Derating – Per Leg

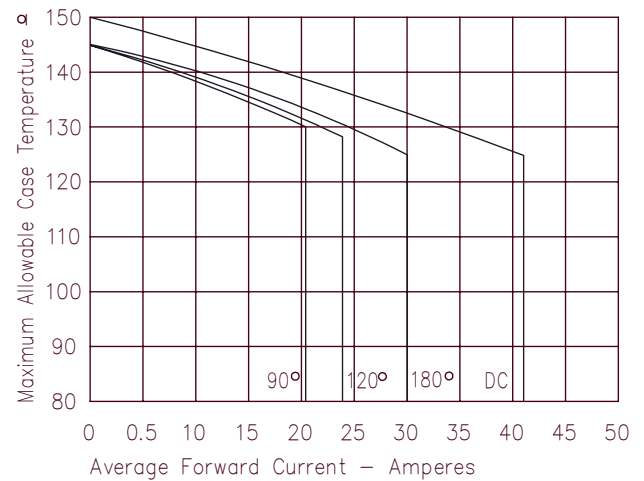


Figure 5  
Maximum Forward Power Dissipation – Per Leg

