



Chipsmall Limited consists of a professional team with an average of over 10 year of expertise in the distribution of electronic components. Based in Hongkong, we have already established firm and mutual-benefit business relationships with customers from,Europe,America and south Asia,supplying obsolete and hard-to-find components to meet their specific needs.

With the principle of “Quality Parts,Customers Priority,Honest Operation,and Considerate Service”,our business mainly focus on the distribution of electronic components. Line cards we deal with include Microchip,ALPS,ROHM,Xilinx,Pulse,ON,Everlight and Freescale. Main products comprise IC,Modules,Potentiometer,IC Socket,Relay,Connector.Our parts cover such applications as commercial,industrial, and automotives areas.

We are looking forward to setting up business relationship with you and hope to provide you with the best service and solution. Let us make a better world for our industry!



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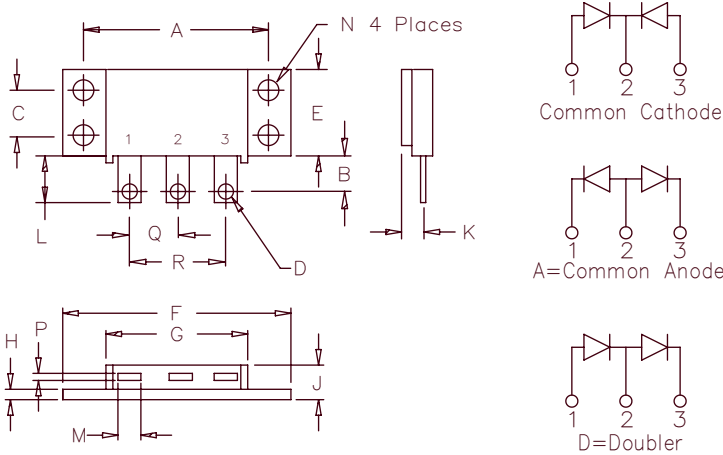
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Schottky Powermod FST16230



Notes:
Baseplate: Nickel plated copper;
electrically isolated
Pins: Nickel plated copper

| | Dim. Inches | | Millimeters | | Notes |
|---|-------------|-------|-------------|----------------|-------|
| | Min. | Max. | Min. | Max. | |
| A | 1.995 | 2.005 | 50.67 | 50.93 | |
| B | 0.300 | 0.325 | 7.62 | 8.26 | |
| C | 0.495 | 0.505 | 12.57 | 12.83 | |
| D | 0.182 | 0.192 | 4.62 | 4.88 | Dia. |
| E | 0.990 | 1.010 | 25.15 | 25.65 | |
| F | 2.390 | 2.410 | 60.71 | 61.21 | |
| G | 1.500 | 1.525 | 38.10 | 38.70 | |
| H | 0.120 | 0.130 | 3.05 | 3.30 | |
| J | --- | 0.400 | --- | 10.16 | |
| K | 0.240 | 0.260 | 6.10 | 6.60 to Lead Q | |
| L | 0.490 | 0.510 | 12.45 | 12.95 | |
| M | 0.330 | 0.350 | 8.38 | 6.90 | |
| N | 0.175 | 0.195 | 4.45 | 4.95 | Dia. |
| P | 0.035 | 0.045 | 0.89 | 1.14 | |
| Q | 0.445 | 0.455 | 11.30 | 11.56 | |
| R | 0.890 | 0.910 | 22.61 | 23.11 | |

TO-249

| Microsemi Catalog Number | Industry Part Number | Working Peak Reverse Voltage | Repetitive Peak Reverse Voltage |
|--------------------------|----------------------|------------------------------|---------------------------------|
| FST16230* | 162CMQ030 | 30V | 30V |

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

- Schottky Barrier Rectifier
- Guard Ring for Reverse Protection
- VRRM - 30 Volts
- High Surge Capacity
- Reverse Energy Tested
- ROHS Compliant

Electrical Characteristics

| | | |
|---|---------------------|---|
| Average forward current per pkg | $I_F(AV)$ 160 Amps | $T_C = 83^\circ C$, Square wave, $R_{\theta JC} = 0.5^\circ C/W$ |
| Average forward current per leg | $I_F(AV)$ 80 Amps | $T_C = 83^\circ C$, Square wave, $R_{\theta JC} = 1.0^\circ C/W$ |
| Maximum surge current per leg | I_{FSM} 1000 Amps | 8.3 ms, half sine $T_J = 150^\circ C$ |
| Max repetitive peak reverse current per leg | $R(OV)$ 2 Amps | $f = 1$ KHz, $25^\circ C$, $1\mu sec$ Square wave |
| Max peak forward voltage per leg | V_{FM} .55 Volts | $I_{FM} = 80A$: $T_J = 125^\circ C^*$ |
| Max peak forward voltage per leg | V_{FM} .59 Volts | $I_{FM} = 80A$: $T_J = 25^\circ C^*$ |
| Max peak reverse current per leg | I_{RM} 300 mA | V_{RRM} , $T_J = 125^\circ C^*$ |
| Max peak reverse current per leg | I_{RM} 1 mA | V_{RRM} , $T_J = 25^\circ C$ |
| Typical junction capacitance per leg | C_J 2400 pF | $V_R = 5.0V$, $T_J = 25^\circ C$ |

*Pulse test: Pulse width 300 μsec , 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 $150^\circ C$ |
| Maximum thermal resistance per leg | $R_{\theta JC}$ | $1.0^\circ C/W$ Junction to case |
| Maximum thermal resistance per pkg. | $R_{\theta JC}$ | $0.5^\circ C/W$ Junction to case |
| Typical thermal resistance (greased) | $R_{\theta CS}$ | $0.1^\circ C/W$ Case to sink |
| Mounting torque | | 15 - 20 inch pounds |
| Weight | | 2.5 ounces (71 grams) typical |

FST16230

Figure 1
Typical Forward Characteristics – Per Leg

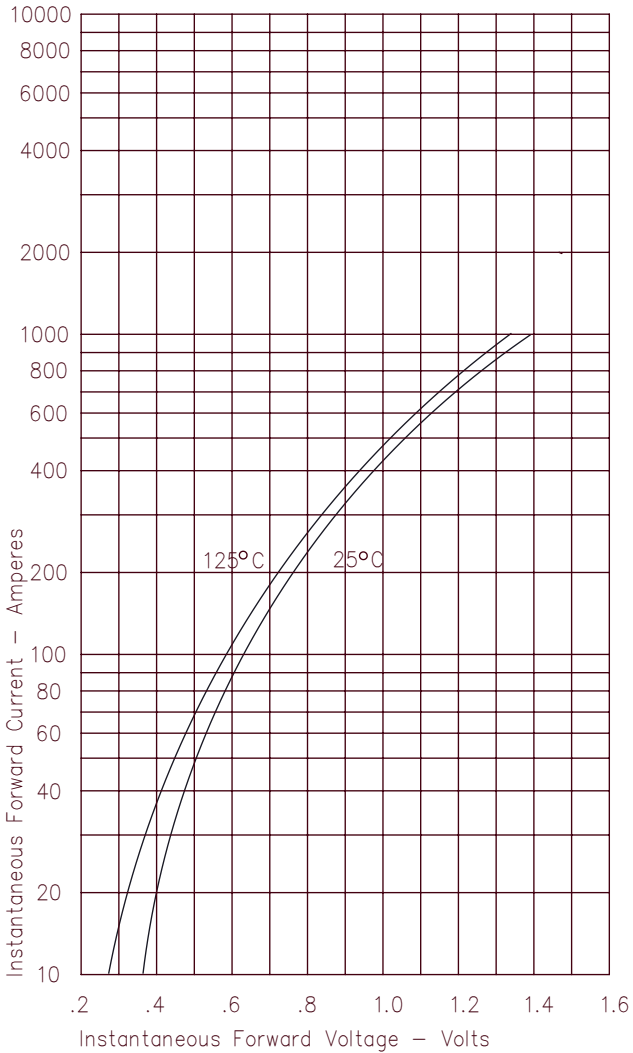


Figure 3
Typical Junction Capacitance – Per Leg

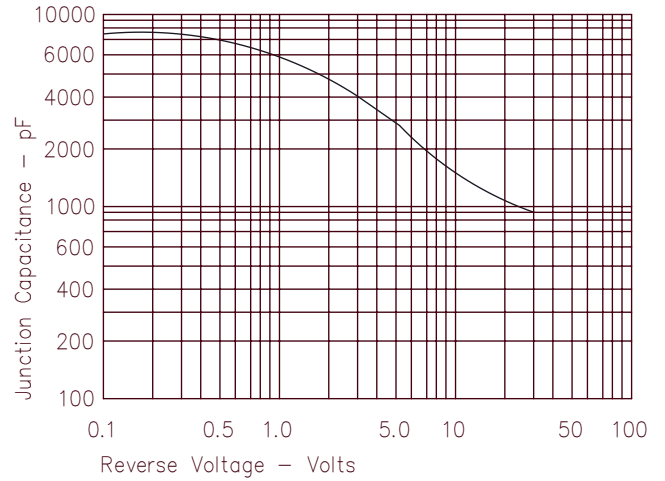


Figure 4
Forward Current Derating – Per Leg

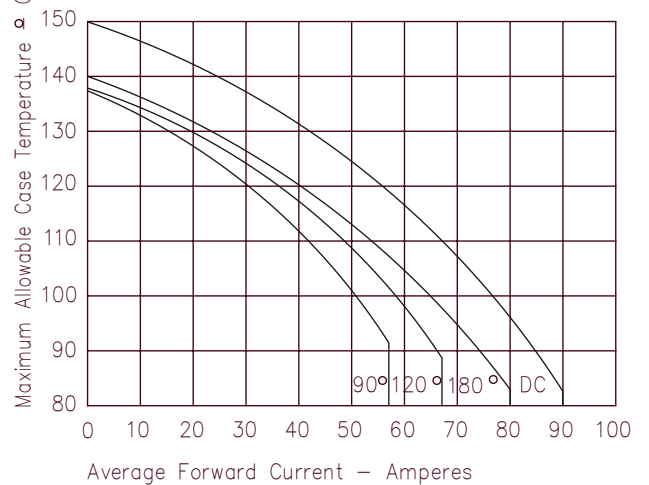
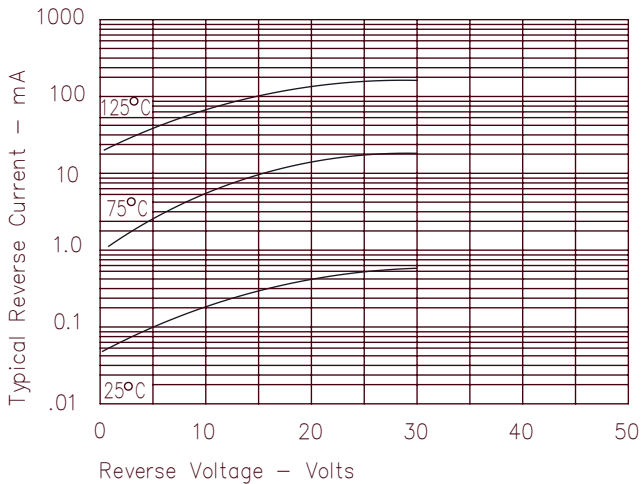


Figure 2
Typical Reverse Characteristics – Per Leg



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