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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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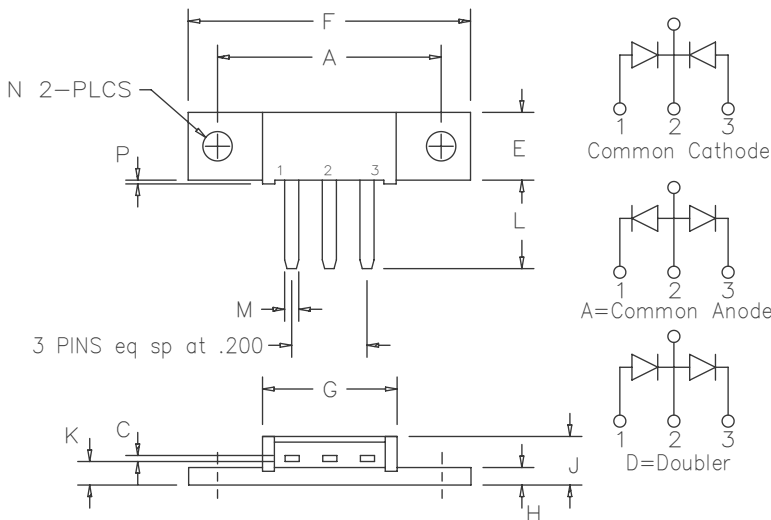
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Schottky MiniMod

FST8130 — FST8145



| Dim. | Inches | | Millimeter | | Notes |
|------|---------|---------|------------|---------|-------|
| | Minimum | Maximum | Minimum | Maximum | |
| A | 1.180 | 1.195 | 29.97 | 30.35 | |
| C | .027 | .037 | 0.69 | 0.94 | |
| 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 | .065 | .085 | 1.65 | 2.16 | |
| N | .151 | .161 | 3.84 | 4.09 | Dia. |
| P | .015 | .025 | 0.38 | 0.64 | |

Note: Baseplate Common with Pin 2

| Microsemi Catalog Number | Industry Part Number | Working Peak Reverse Voltage | Repetitive Peak Reverse Voltage |
|--------------------------|----------------------|------------------------------|---------------------------------|
| FST8130* | | 30V | 30V |
| FST8135* | 80CNQ035, A | 35V | 35V |
| | 84CNQ035 | | |
| FST8140* | 80CNQ040, A | 40V | 40V |
| | 84CNQ040 | | |
| FST8145* | 80CNQ045, A | 45V | 45V |
| | 84CNQ045 | | |

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

- Schottky Barrier Rectifier
- Guard Ring Protection
- Common Cathode Center Tap
- 2X40 Amperes avg.
- 150°C Junction Temperature
- Reverse Energy Tested
- Low Forward Voltage
- ROHS Compliant

Electrical Characteristics

| | | |
|---|---------------------|--|
| Average forward current per pkg | $I_{F(AV)}$ 80 Amps | $T_C = 110^\circ\text{C}$, Square wave, $R_{\theta JC} = 0.5^\circ\text{C/W}$ |
| Average forward current per leg | $I_{F(AV)}$ 40 Amps | $T_C = 110^\circ\text{C}$, Square wave, $R_{\theta JC} = 1.0^\circ\text{C/W}$ |
| Maximum surge current per leg | I_{FSM} 800 Amps | 8.3 ms, half sine, $T_J = 150^\circ\text{C}$ |
| Max repetitive peak reverse current per leg | $I_{R(OV)}$ 2 Amps | $f = 1 \text{ KHZ}$, 25°C , $1\mu\text{sec}$ square wave |
| Max peak forward voltage per leg | V_{FM} 0.47 Volts | $I_{FM} = 40\text{A}$: $T_J = 150^\circ\text{C}^*$ |
| Max peak forward voltage per leg | V_{FM} 0.53 Volts | $I_{FM} = 40\text{A}$: $T_J = 25^\circ\text{C}^*$ |
| Max peak reverse current per leg | I_{RM} 500 mA | V_{RRM} , $T_J = 125^\circ\text{C}^*$ |
| Max peak reverse current per leg | I_{RM} 3.0 mA | V_{RRM} , $T_J = 25^\circ\text{C}$ |
| Typical junction capacitance per leg | C_J 2100 pF | $V_R = 5.0\text{V}$, $T_C = 25^\circ\text{C}$ |

*Pulse test: Pulse width 300 μsec , Duty cycle 2%

Thermal and Mechanical Characteristics

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

FST8130 – FST8145

Figure 1
Typical Forward Characteristics – Per Leg

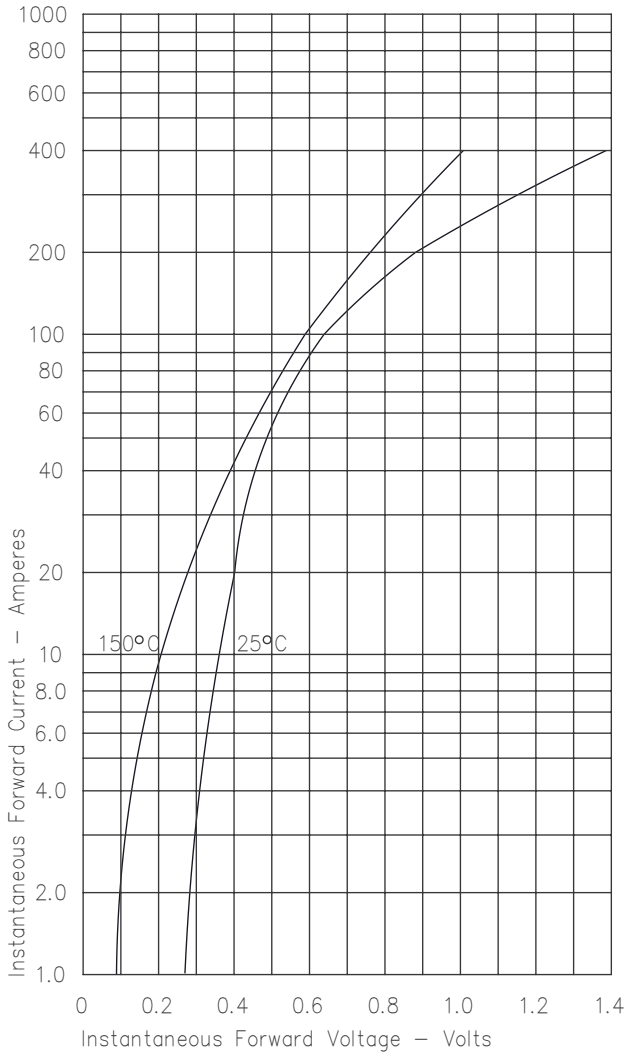


Figure 3
Typical Junction Capacitance – Per Leg

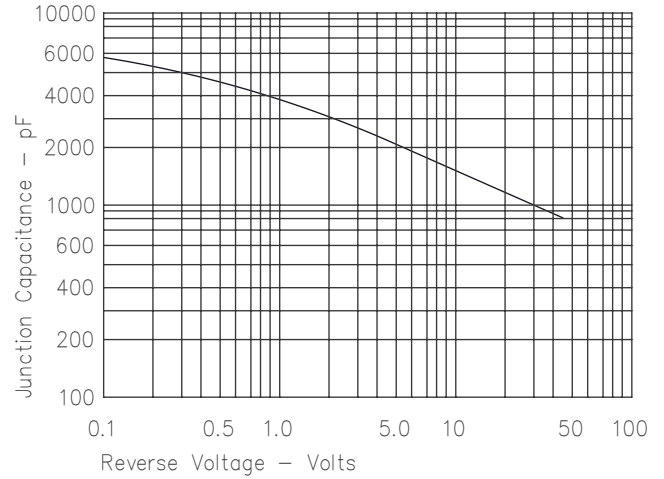


Figure 4
Forward Current Derating – Per Leg

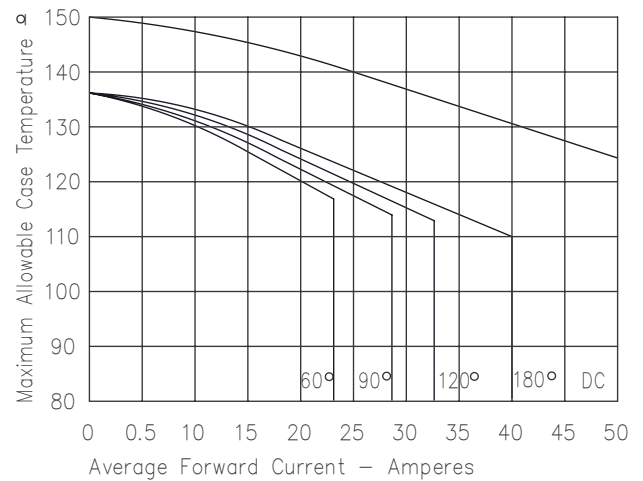


Figure 2
Typical Reverse Characteristics – Per Leg

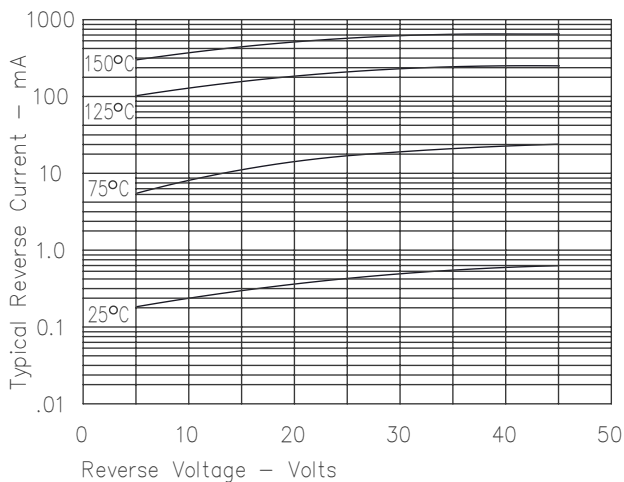
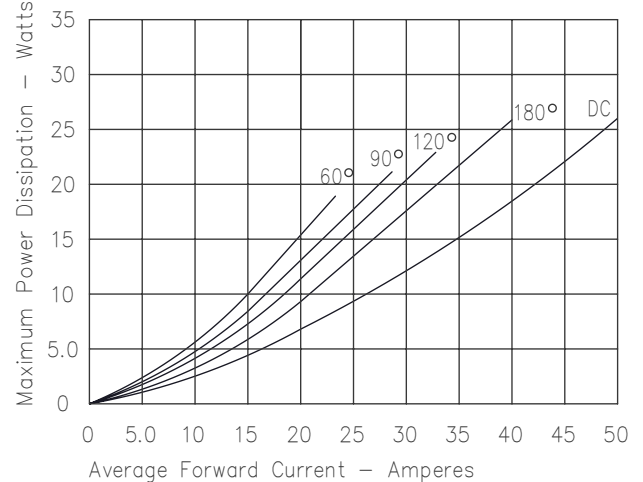


Figure 5
Maximum Forward Power Dissipation – Per Leg



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