



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!



Contact us

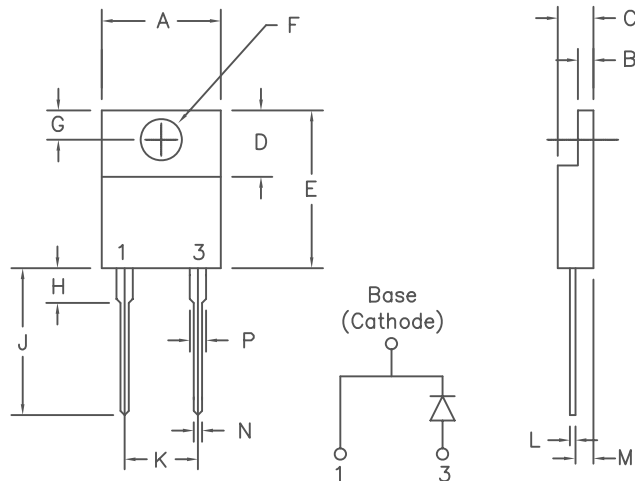
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16 Amp Schottky Barrier Rectifiers MS1635 — MS1645



| Dim. | Inches | | Millimeter | | Notes |
|------|---------|---------|------------|---------|-------|
| | Minimum | Maximum | Minimum | Maximum | |
| A | .390 | .415 | 9.91 | 10.54 | |
| B | .045 | .055 | 1.14 | 1.40 | |
| C | .180 | .190 | 4.57 | 4.83 | |
| D | .245 | .260 | 6.22 | 6.60 | |
| E | .550 | .650 | 13.97 | 16.51 | |
| F | .139 | .155 | 3.53 | 3.94 | Dia. |
| G | .100 | .120 | 2.54 | 3.05 | |
| H | --- | .250 | --- | 6.35 | |
| J | .500 | .580 | 12.70 | 14.73 | |
| K | .190 | .210 | 4.83 | 5.33 | |
| L | .014 | .025 | 0.35 | 0.63 | |
| M | .080 | .115 | 2.03 | 2.92 | |
| N | .028 | .038 | 0.71 | 0.96 | |
| P | .045 | .055 | 1.14 | 1.40 | |

Similar to TO-220AC

| Microsemi Catalog Number | Industry Part Number | Repetitive Peak Reverse Voltage | Transient Peak Reverse Voltage |
|--------------------------|----------------------------------------------------------|---------------------------------|--------------------------------|
| MS1635 | 12TQ035 | 35V | 35V |
| | 18TQ035 MBR1535, MBR1635 | | |
| MS1645 | 12TQ040, 12TQ045 | 45V | 45V |
| | 18TQ040, 18TQ045 MBR1540, MBR1545 MBR1640, MBR1645 | | |

- Schottky barrier rectifier
- Guard ring reverse protection
- Low power loss, high efficiency
- VRRM 35 to 45 Volts
- Reverse energy tested

Electrical Characteristics

| | | |
|------------------------------|----------------------------|--------------------------------------------------------------------------------|
| Average Forward Current | $I_F(AV)$ 16 Amps | $T_C = 153^\circ\text{C}$, Square wave, $R_{\theta JC} = 2.0^\circ\text{C/W}$ |
| Maximum Surge Current | I_{FSM} 300 Amps | 8.3ms, half sine, $T_J = 175^\circ\text{C}$ |
| Max. Peak Forward Voltage | V_{FM} .56 Volts | $I_{FM} = 16\text{A}$, $T_J = 150^\circ\text{C}^*$ |
| Max. Peak Forward Voltage | V_{FM} .67 Volts | $I_{FM} = 16\text{A}$, $T_J = 25^\circ\text{C}^*$ |
| Max. Peak Reverse Current | I_{RM} 10 mA | V_{RRM} , $T_J = 125^\circ\text{C}^*$ |
| Max. Peak Reverse Current | I_{RM} 250 μA | V_{RRM} , $T_J = 25^\circ\text{C}$ |
| Typical Junction Capacitance | C_J 850 pF | $V_R = 5.0\text{V}$, $T_J = 25^\circ\text{C}$ |

*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 175°C |
| Max thermal resistance | $R_{\theta JC}$ | 2.0°C/W |
| Mounting torque | | 8-12 inch pounds (6-32 screw) |
| Weight | | .08 ounces (2.3 grams) typical |



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05-25-07 Rev. 6

MS1635 — MS1645

Figure 1
Typical Forward Characteristics

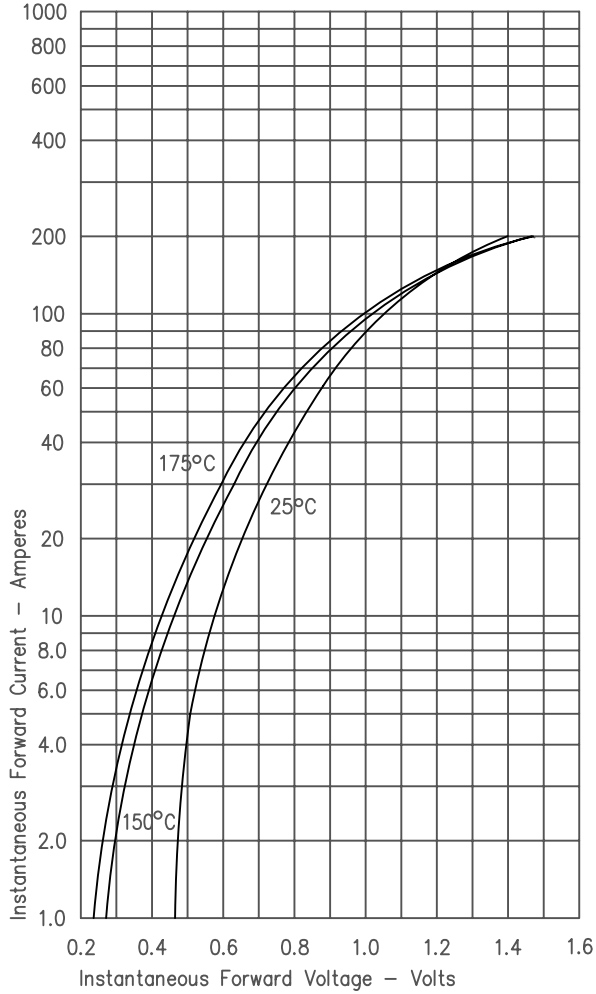


Figure 3
Typical Junction Capacitance

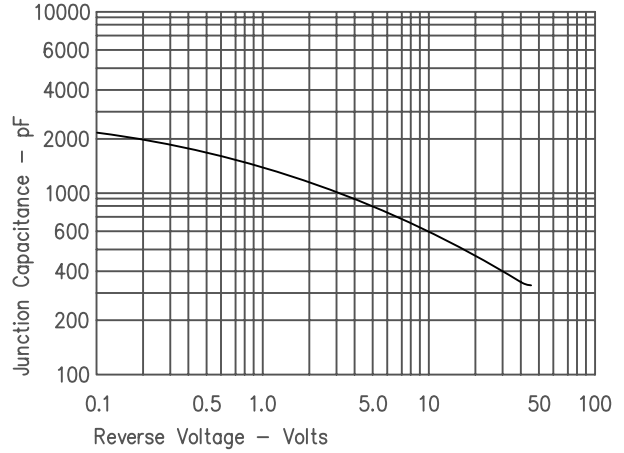


Figure 4
Forward Current Derating

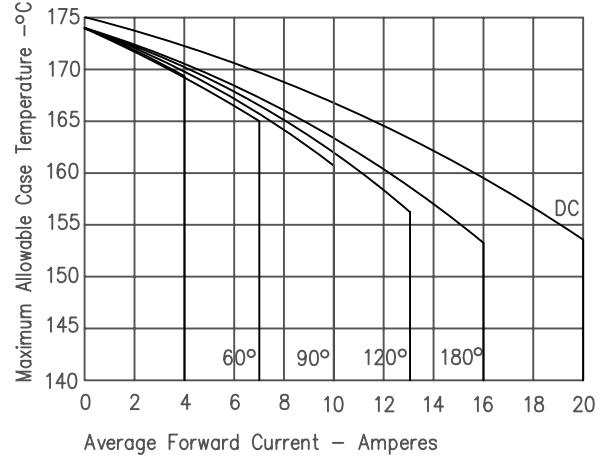


Figure 2
Typical Reverse Characteristics

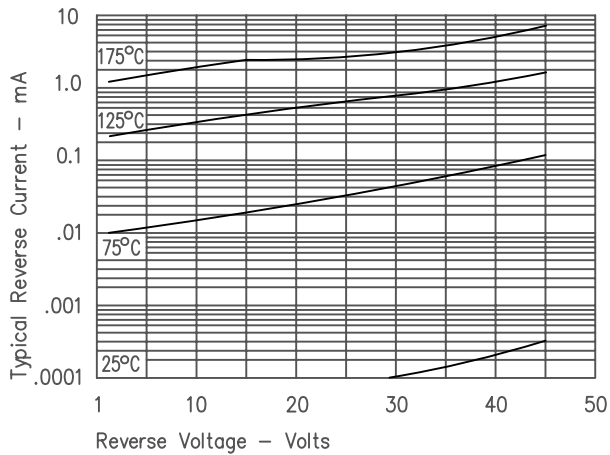


Figure 5
Maximum Forward Power Dissipation

