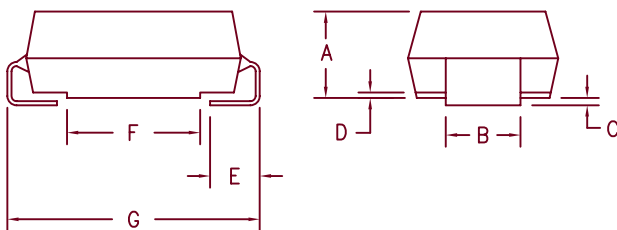
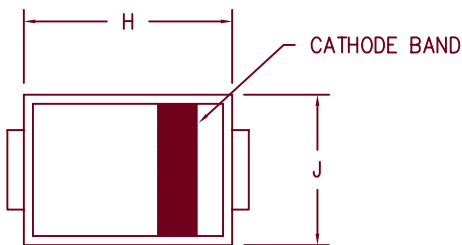


1 Amp Schottky Rectifiers 5817SMJ — 5819SMJ



| Dim. | Inches | | Millimeter | | Notes |
|------|---------|---------|------------|---------|-------|
| | Minimum | Maximum | Minimum | Maximum | |
| A | .078 | .116 | 1.98 | 2.95 | |
| B | .075 | .089 | 1.90 | 2.25 | |
| C | .002 | .008 | 0.05 | 0.20 | |
| D | --- | .020 | --- | 0.51 | |
| E | .035 | .055 | 0.89 | 1.40 | |
| F | .065 | .091 | 1.65 | 2.32 | |
| G | .205 | .224 | 5.21 | 5.69 | |
| H | .160 | .180 | 4.06 | 4.57 | |
| J | .130 | .155 | 3.30 | 3.94 | |

SMB

| Microsemi Catalog Number | Industry Part Number | Working Peak Reverse Voltage | Repetitive Peak Reverse Voltage |
|--------------------------|--------------------------------|------------------------------|---------------------------------|
| 5817SMJ | SK12 MBRS120T3 | 20V | 20V |
| 5818SMJ | SK13 MBRS130T3 MBRS130TR | 30V | 30V |
| 5819SMJ | SK14 MBRS140T3 | 40V | 40V |

- Underwriters Laboratory Flammability Class 94V-0
- Schottky Barrier Rectifier
- Guard ring protection
- Low forward voltage
- Low thermal resistance rating

Electrical Characteristics

| | | 5817SMJ | 5818SMJ | 5819SMJ | |
|------------------------------|--------------------|---------|---------|---------|---|
| Average forward current | I _{F(AV)} | 1A | 1A | 1A | Square wave |
| Lead temperature | T _L | 117°C | 118°C | 118°C | R _{θJC} = 15°C/W |
| Maximum surge current | I _{FSM} | 50A | 50A | 50A | 8.3ms, half sine, T _J = 150°C |
| Max peak forward voltage | V _{FM} | .32V | .37V | .37V | I _{FM} = 0.1A: T _J = 25°C * |
| Max peak forward voltage | V _{FM} | .45V | .55V | .55V | I _{FM} = 1.0A: T _J = 25°C * |
| Max peak forward voltage | V _{FM} | .65V | .85V | .85V | I _{FM} = 3.0A: T _J = 25°C * |
| Max peak reverse current | I _{RM} | 1mA | 1mA | 1mA | V _{RRM} , T _J = 25°C |
| Typical junction capacitance | C _J | 105pF | 50pF | 50pF | V _R = 5.0V, T _J = 25°C |

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

Thermal and Mechanical Characteristics

| | | |
|-------------------------------|------------------|-----------------------------------|
| Storage temperature range | T _{STG} | -55°C to 150°C |
| Operating junction temp range | T _J | -55°C to 150°C |
| Maximum thermal resistance | R _{θJC} | 15°C/W Junction to lead |
| Weight | | .0047 ounces (.013 grams) typical |



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05-09-07 Rev. 6

5817SMJ

Figure 1
Typical Forward Characteristics

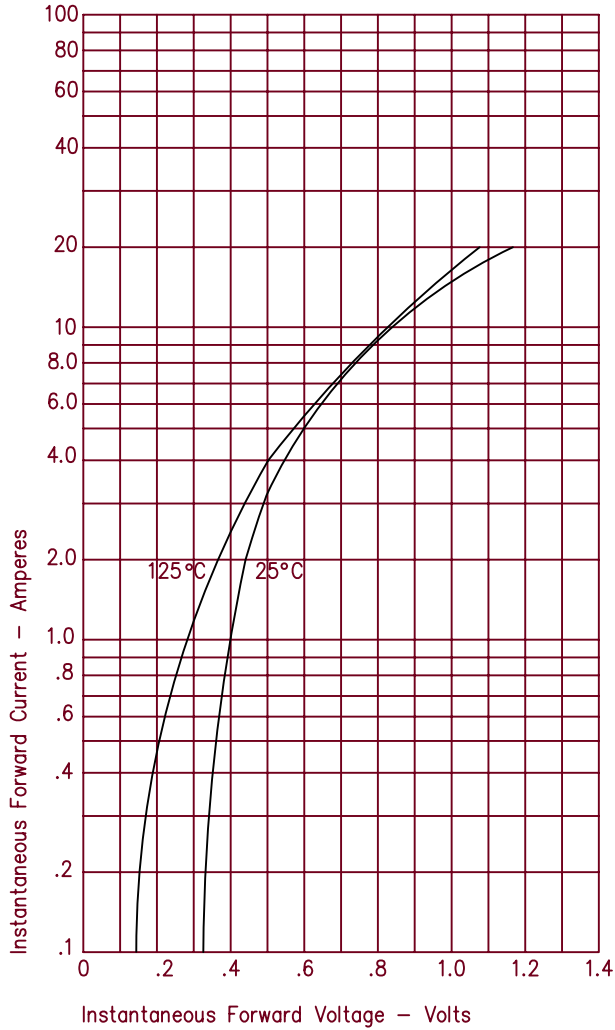


Figure 3
Typical Junction Capacitance

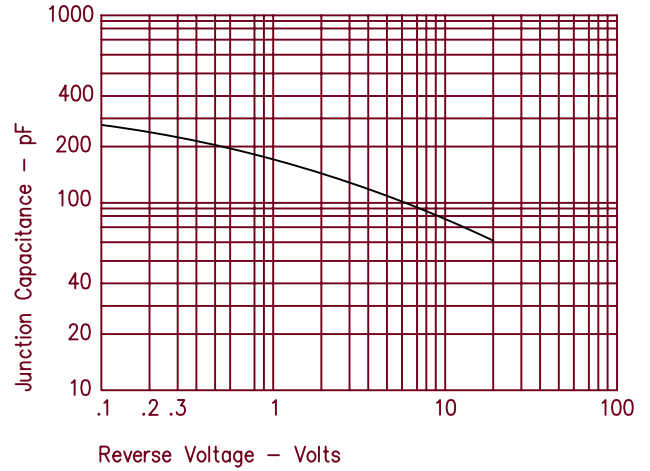
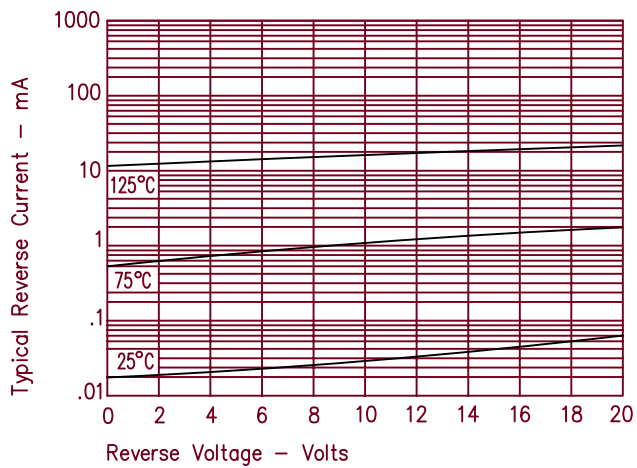


Figure 2
Typical Reverse Characteristics



5818SMJ & 5819SMJ

Figure 1
Typical Forward Characteristics

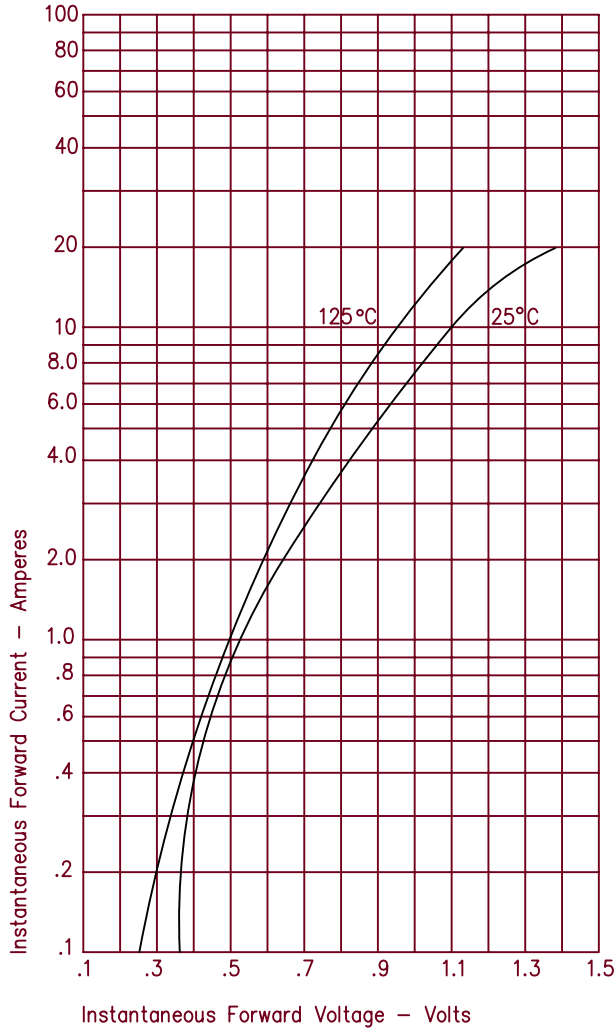


Figure 3
Typical Junction Capacitance

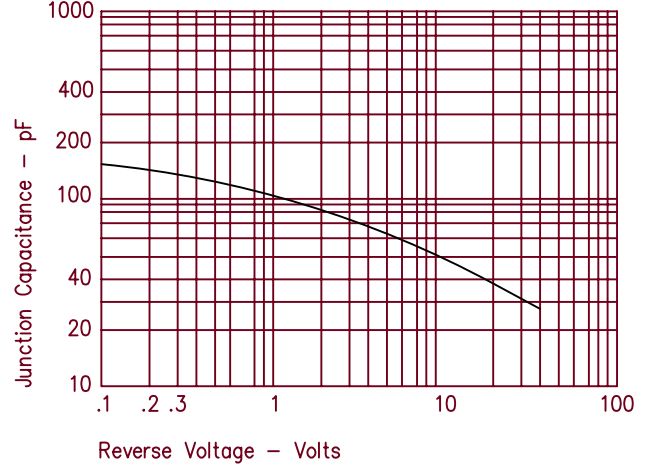


Figure 2
Typical Reverse Characteristics

