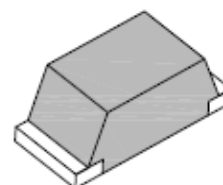


1.0A Surface Mount Schottky Rectifier

Features

- Batch process design, excellent power dissipation offers better reverse leakage current and thermal resistance
- Low profile surface mounted application in order to optimize board space
- Tiny plastic SMD package
- Low power loss, high efficiency
- High current capability, low forward voltage drop
- High surge capability
- Guarding for overvoltage protection
- Ultra high-speed switching
- Silicon epitaxial planar chip, metal silicon junction
- RoHS Compliance



MFP



Mechanical Data

| | |
|---------------------------|---|
| Case: | MFP/MINI-SMA, Molded plastic body |
| Epoxy: | Plastic package has UL flammability classification 94V-0 |
| Terminals: | Plated terminals, solderable per MIL-STD-750, Method 2026 |
| Polarity: | Indicated by cathode band |
| Mounting Position: | Any |
| Weight: | Approximated 0.027gram |

Maximum Ratings and Electrical Characteristics ($T_A=25^{\circ}C$ unless otherwise noted)

| Symbol | Description | MFPS5817 | Unit | Conditions |
|--------------------------|--------------------------------------|----------|------|---|
| | Marking Code | 12 | | |
| V_{RRM} | Max. Repetitive Peak Reverse Voltage | 20 | V | |
| V_{RMS} | Max. RMS Voltage | 14 | V | |
| I_{F(AV)} | Average Forward Rectified Current | 1.0 | A | See Fig.1 |
| I_{FSM} | Peak Forward Surge Current | 30 | A | 8.3ms single half sine-wave superimposed on rated load (JEDEC Method) |
| V_F | Max. Forward Voltage | 0.45 | V | I _F =1.0A |

1.0A Surface Mount Schottky Rectifier

MFPS5817

| Symbol | Description | MFPS5817 | Unit | Conditions |
|-------------------------|--|-------------|--------|-----------------------------|
| I_R | Reverse Current @ V _R = V _{RRM} | 0.5 | mA | T _A =25°C |
| | | 10 | mA | T _A =125°C |
| R_{thJA} | Thermal Resistance | 98 | °C / W | Junction to ambient |
| C_J | Diode Junction Capacitance | 120 | pF | V _R = 4V, f=1MHz |
| T_J | Operating Temperature Range | -55 to +125 | °C | |
| T_{STG} | Storage Temperature Range | -65 to +175 | °C | |

Rating and characteristic curves

Fig.1- Typical Forward Current Derating Curve

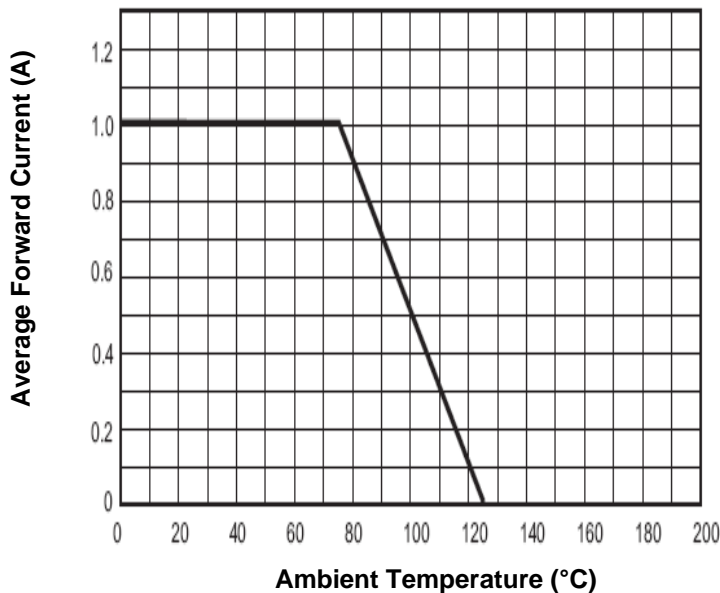
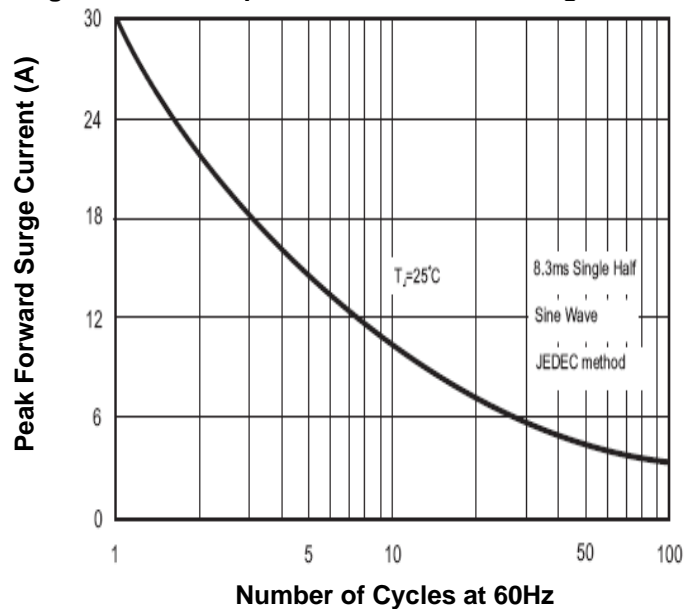


Fig.2-Max Non-Repetitive Peak Forward Surge Current



1.0A Surface Mount Schottky Rectifier

MFPS5817

Fig.3- Typical Instantaneous Forward Characteristics

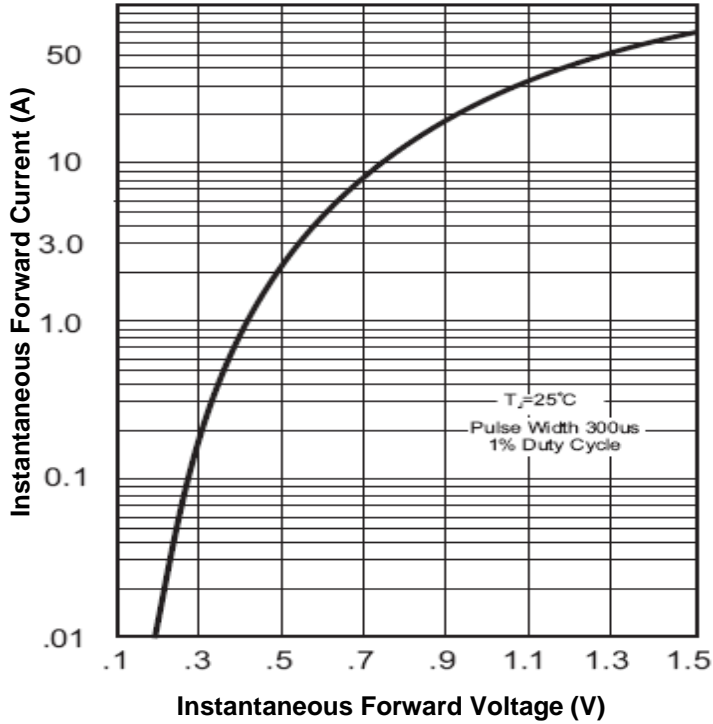


Fig.4-Typical Reverse Leakage Characteristics

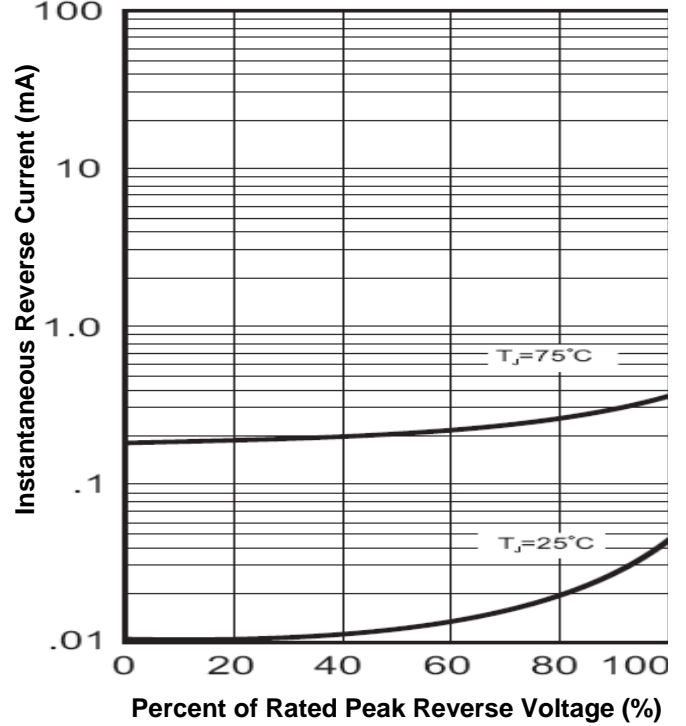
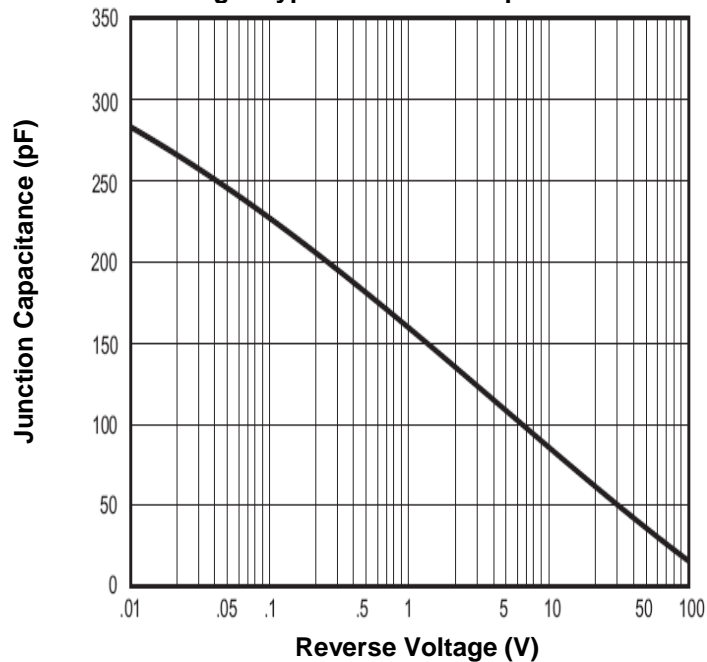


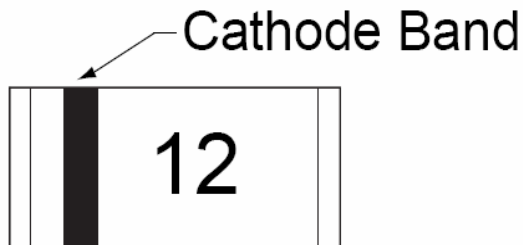
Fig.5-Typical Junction Capacitance



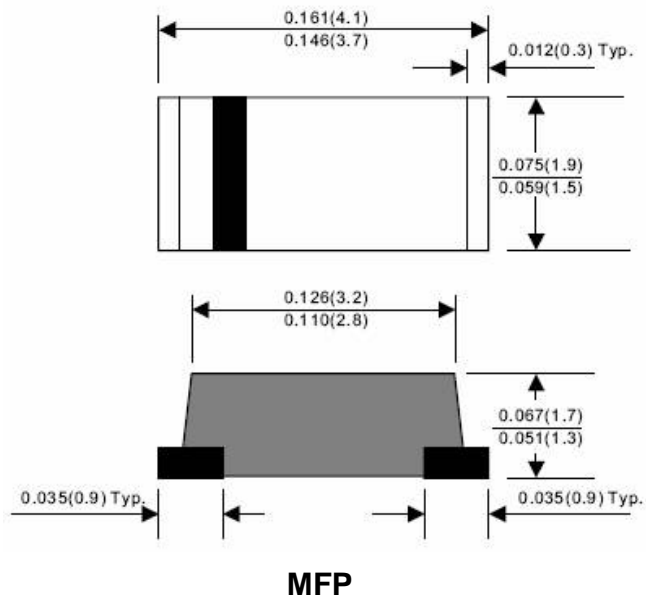
1.0A Surface Mount Schottky Rectifier

MFPS5817

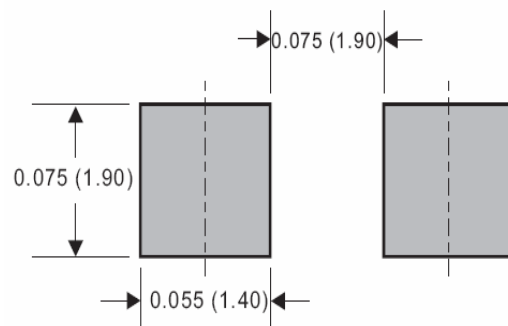
Marking Information:



Dimensions in inches (mm)



Suggested Solder Pad Layout in inch (mm)



1.0A Surface Mount Schottky Rectifier

MFPS5817

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