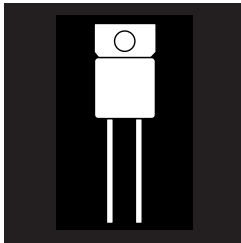


OM4003ST OM4005ST OM4007ST  
OM4004ST OM4006ST

## 10 AMP SCHOTTKY RECTIFIER IN SMALL HERMETIC PACKAGE



### 10 Amp, 60 To 100 Volt Schottky Rectifiers

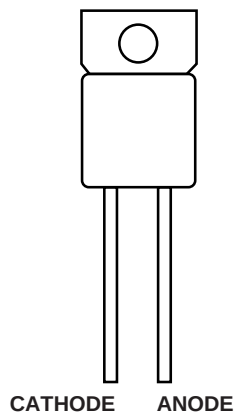
#### FEATURES

- Small Size
- Very Low Forward Voltage
- Low Recovered Charge
- Rugged Package Design
- High Efficiency for Low Voltage Supplies
- Hermetic and Isolated Package
- Available Screened To MIL-S-19500, TX, TXV And S Levels

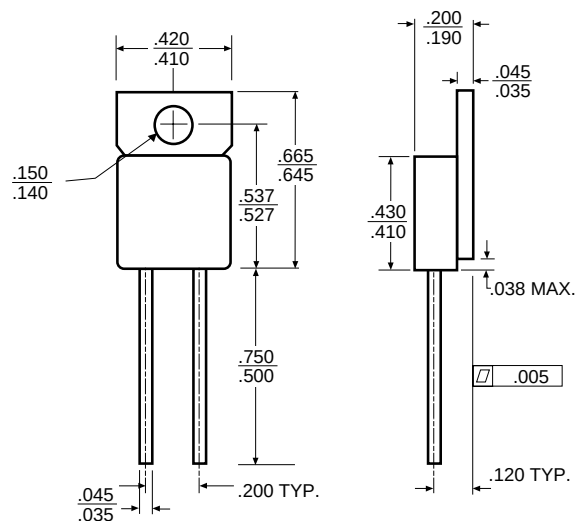
#### DESCRIPTION

This series of Schottky barrier diodes offers low forward voltage and high output current for its small package size. The OM4003 series was designed for demanding applications where small size, light weight and high reliability are required. These devices are ideal replacements for TO-3, DO-4 or DO-5 packages. All products are available Hi-Rel screened.

#### PIN CONNECTION



#### MECHANICAL OUTLINE



3.2

MAXIMUM RATINGS

| Rating                                                                                                     | Symbol                          | OM          |      |      |      |      | Unit             |
|------------------------------------------------------------------------------------------------------------|---------------------------------|-------------|------|------|------|------|------------------|
|                                                                                                            |                                 | 4003        | 4004 | 4005 | 4006 | 4007 |                  |
| Peak Repetitive Reverse Voltage<br>Working Peak Reverse Voltage<br>DC Blocking Voltage                     | $V_{RRM}$<br>$V_{RWM}$<br>$V_R$ | 60          | 70   | 80   | 90   | 100  | Volts            |
| Average Rectified Forward Current (Rated $V_R$ ) $T_C = 100^\circ\text{C}$                                 | $I_{F(AV)}$                     | 10          |      |      |      |      | Amps             |
| Peak Repetitive Forward Current<br>(Rated $V_R$ , Square Wave, 20 kHz) $T_C = 100^\circ\text{C}$           | $I_{FRM}$                       | 20          |      |      |      |      | Amps             |
| Nonrepetitive Peak Surge Current<br>(Surge applied at rated load conditions halfwave, single phase, 60 Hz) | $I_{FSM}$                       | 150         |      |      |      |      | Amps             |
| Peak Repetitive Reverse Surge Current (2 $\mu\text{s}$ , 1 kHz)                                            | $I_{RRM}$                       | 0.5         |      |      |      |      | Amps             |
| Operating Junction Temperature                                                                             | $T_J$                           | -65 to +150 |      |      |      |      | $^\circ\text{C}$ |
| Storage Temperature                                                                                        | $T_{stg}$                       | -65 to +175 |      |      |      |      | $^\circ\text{C}$ |

THERMAL CHARACTERISTICS

|                            |                 |   |                    |
|----------------------------|-----------------|---|--------------------|
| Maximum Thermal Resistance | $R_{\theta JC}$ | 3 | $^\circ\text{C/W}$ |
|----------------------------|-----------------|---|--------------------|

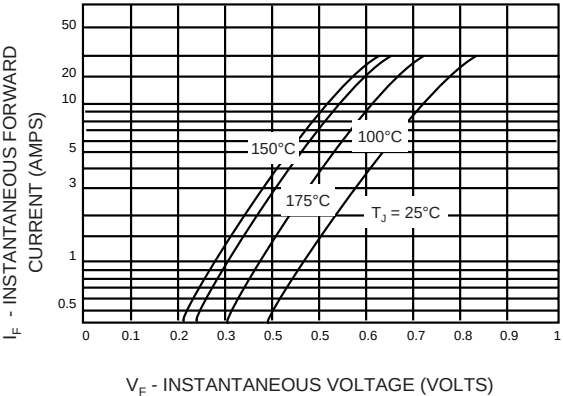
ELECTRICAL CHARACTERISTICS

|                                                       |       |      |       |
|-------------------------------------------------------|-------|------|-------|
| Maximum Instantaneous Forward Voltage (1)             | $V_F$ |      | Volts |
| ( $i_F = 10\text{ Amp}$ , $T_C = 125^\circ\text{C}$ ) |       | .725 |       |
| ( $i_F = 10\text{ Amp}$ , $T_C = 25^\circ\text{C}$ )  |       | .825 |       |
| Maximum Instantaneous Forward Reverse Current (1)     | $i_R$ |      | mA    |
| (Related dc Voltage, $T_C = 125^\circ\text{C}$ )      |       | 150  |       |
| (Related dc Voltage, $T_C = 25^\circ\text{C}$ )       |       | 5    |       |

(1) Pulse Test: Pulse Width = 300  $\mu\text{s}$ , Duty Cycle 2%

3.2

Typical Forward Voltage



Typical Reverse Current

