

## Features

- \* Low forward voltage drop
- \* Low reverse current
- \* RoHS Compliant
- \* REACH & SVHC Compliant
- \* Halogen Compliant
- \* SOD-523 Package



SOD-523

## Ordering Information

| Part Number    | Packaging        | Reel Size |
|----------------|------------------|-----------|
| PMEG3005EBF-FS | 3000/Tape & Reel | 7 inch    |

## Circuit Diagram



## Marking Diagram :



Top view

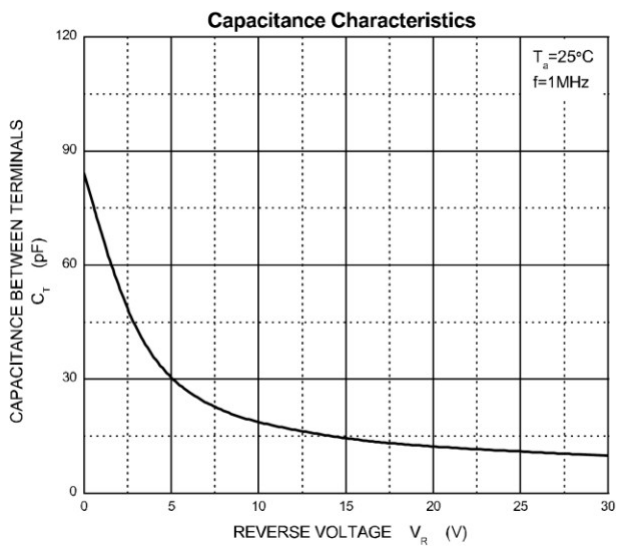
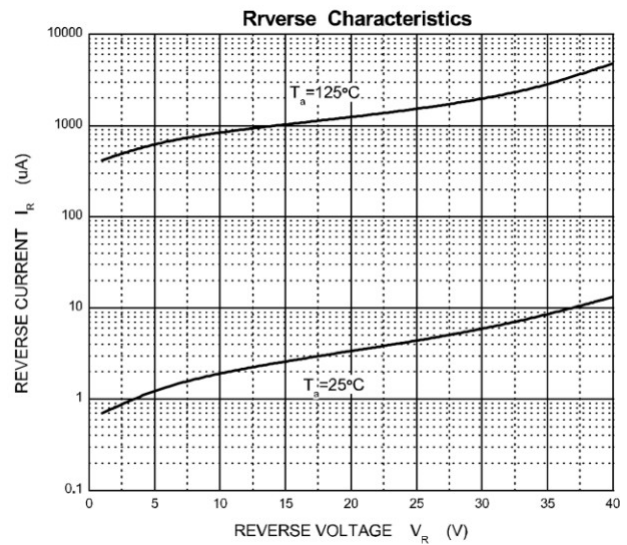
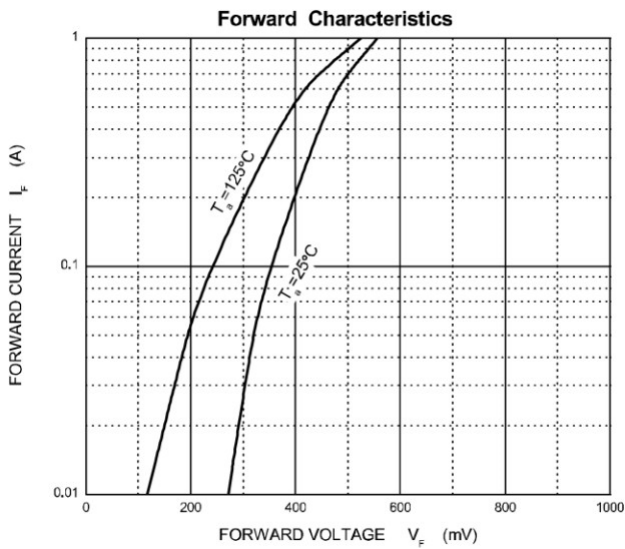
## Absolute Maximum Ratings ( $T_A=25^\circ\text{C}$ unless otherwise specified)

| Parameter                                              | Symbol    | Value       | Unit             |
|--------------------------------------------------------|-----------|-------------|------------------|
| Repetitive peak reverse voltage                        | $V_{RRM}$ | 40          | V                |
| DC blocking voltage                                    | $V_R$     | 40          | V                |
| Continuous forward current                             | $I_O$     | 1           | A                |
| Non-repetitive peak forward current @ $t=8.3\text{ms}$ | $I_{FSM}$ | 7           | A                |
| Power dissipation                                      | $P_D$     | 500         | mW               |
| Junction temperature                                   | $T_J$     | -40 to +125 | $^\circ\text{C}$ |
| Storage temperature                                    | $T_{STG}$ | -55 to +150 | $^\circ\text{C}$ |

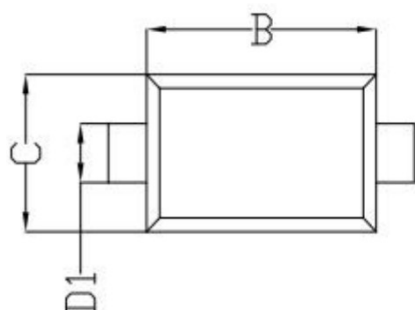
## Electrical Characteristics ( $T_A=25^\circ\text{C}$ unless otherwise specified)

| Parameter               | Symbol   | Test Condition                      | Min | Typ | Max | Unit          |
|-------------------------|----------|-------------------------------------|-----|-----|-----|---------------|
| Breakdown voltage       | $V_{BR}$ | $I_T = 1\text{mA}$                  | 40  |     |     | V             |
| Reverse leakage current | $I_R$    | $V_R = 40\text{V}$                  |     | 10  | 40  | $\mu\text{A}$ |
| Forward voltage         | $V_F$    | $I_F = 0.1\text{A}$                 |     |     | 420 | mV            |
| Forward voltage         | $V_F$    | $I_F = 0.2\text{A}$                 |     |     | 450 | mV            |
| Forward voltage         | $V_F$    | $I_F = 1\text{A}$                   |     |     | 610 | mV            |
| Diode capacitance       | $C_D$    | $V_R = 10\text{V}, f = 1\text{MHz}$ |     | 19  |     | pF            |

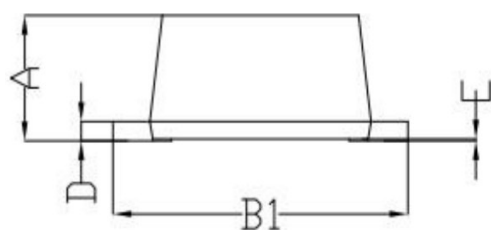
Typical Performance Characteristics ( $T_A=25^\circ\text{C}$  unless otherwise Specified)



### SOD-523 Package Outline Drawing



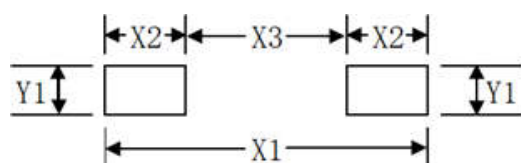
**TOP VIEW**



**SIDE VIEW**

| SYM | DIMENSIONS  |      |      |        |        |        |
|-----|-------------|------|------|--------|--------|--------|
|     | MILLIMETERS |      |      | INCHES |        |        |
|     | Min         | Typ  | Max  | Min    | Typ    | Max    |
| A   | 0.60        | 0.65 | 0.70 | 0.0236 | 0.0256 | 0.0276 |
| B   | 1.15        | 1.20 | 1.25 | 0.0453 | 0.0472 | 0.0492 |
| B1  | 1.55        | 1.60 | 1.65 | 0.0610 | 0.0630 | 0.0650 |
| C   | 0.75        | 0.80 | 0.85 | 0.0295 | 0.0315 | 0.0335 |
| D   | 0.10        | 0.11 | 0.12 | 0.0039 | 0.0043 | 0.0047 |
| D1  | 0.28        | 0.30 | 0.32 | 0.0110 | 0.0118 | 0.0126 |
| E   | 0.00        | -    | 0.02 | 0.0000 | -      | 0.0008 |

### Suggested Land Pattern



| SYM | DIMENSIONS |        |
|-----|------------|--------|
|     | MILLIMETER | INCHES |
| X1  | 2.00       | 0.079  |
| X2  | 0.60       | 0.024  |
| X3  | 0.80       | 0.031  |
| Y1  | 0.50       | 0.020  |