

3000 V
1 A
One Diode!



SM3000 HIGH VOLTAGE SMD DIODE

Designers of **smart meter, street lamps, 4G/5G base stations, EV charging systems** and similar applications often face the issue of over-voltage transients, since all these devices are connected directly to the land line which is highly affected by lightning strikes. They are affecting the reliability and lifetime of these products, so the use of rectifier diodes with extra high safety margin against transient surges is mandatory. They can eliminate or reduce expensive over-voltage protection devices.

The latest development of Diotec addresses this requirement. The **SM3000** in Plastic Melf offers the impressive repetitive reverse voltage of **3000V** at **1A** of average forward current. It allows design engineers to develop cost and space solutions by replacing the usual series connection of two lower voltage types.

Features/Benefits

- Very high reverse voltage of **3000 V**
- Replaces two diodes in series
- Average forward current of **1A**
- High forward surge current of **44 A @ 8.3ms**
- Industry standard package outline
- Cost and space saving
- Large **clearance** and **creepage**

Applications

- 4G/5G Base Stations
- Smart Meter
- (Street) Lighting Systems
- EV Charging Stations
- High Voltage Power Supplies

➤ Optimized for high thermal dissipation

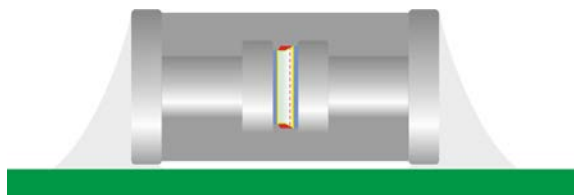
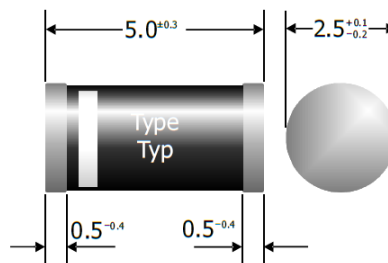


Figure 1: Crosssectional and cutaway view of SM3000 (Melf package)

Advantages:

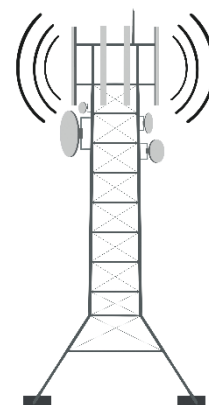
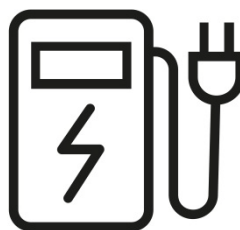
- High power dissipation
- Low thermal resistance
- Rugged soldering interface and high reliability
- Ideally suited for wave soldering

➤ Package Information



Plastic Melf / ~ DO-213AB

➤ Applications



Disclaimer

This flyer describes device proposals and shall not be considered as assured and proven solution for any circuit. No warranty or guarantee, expressed or implied is made regarding the capacity, performance or suitability of any device, circuit etc.