

### Silicon Power Diode PSM/PSMR 16

$$I_{F(AV)} = 16 \text{ A}$$

$$V_{RRM} = 100 - 1600 \text{ V}$$

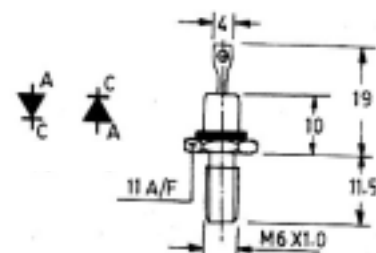
Preliminary Data Sheet

| $V_{RRM}$<br>max. repetitive<br>peak voltage<br>(V) | $V_{R(RMS)}$<br>max. RMS<br>reverse voltage<br>(V) | $V_R$<br>max. DC<br>blocking voltage<br>(V) | recommended<br>RMS working<br>voltage<br>(V) | Type<br><br>without terminal lead |
|-----------------------------------------------------|----------------------------------------------------|---------------------------------------------|----------------------------------------------|-----------------------------------|
| 100                                                 | 70                                                 | 100                                         | 40                                           | PSM/PSMR 16/01L                   |
| 200                                                 | 140                                                | 200                                         | 80                                           | PSM/PSMR 16/02L                   |
| 400                                                 | 280                                                | 400                                         | 160                                          | PSM/PSMR 16/04L                   |
| 600                                                 | 420                                                | 600                                         | 240                                          | PSM/PSMR 16/06L                   |
| 800                                                 | 560                                                | 800                                         | 320                                          | PSM/PSMR 16/08L                   |
| 1000                                                | 700                                                | 1000                                        | 400                                          | PSM/PSMR 16/10L                   |
| 1200                                                | 840                                                | 1200                                        | 480                                          | PSM/PSMR 16/12L                   |
| 1400                                                | 980                                                | 1400                                        | 560                                          | PSM/PSMR 16/14L                   |
| 1600                                                | 1120                                               | 1600                                        | 640                                          | PSM/PSMR 16/16L                   |

| Symbol      | Conditions                                                                   | Maximum Ratings |                  |
|-------------|------------------------------------------------------------------------------|-----------------|------------------|
| $I_{F(AV)}$ | $T_C = 150^\circ\text{C}$                                                    | 16              | A                |
| $I_{FSM}$   | $T_{VJ} = 45^\circ\text{C}$ $t = 10 \text{ ms}$                              | 300             | A                |
| $I_{FRM}$   | max. peak cycle repetitive surge current                                     | 80              | A                |
| $I^2t$      | max. $I^2t$ rating (non-rep.) for 5 to 10 ms                                 | 450             | A <sup>2</sup> s |
| $I_{R(AV)}$ | max. average reverse leakage current at $V_{RRM}$ ; $T_C = 25^\circ\text{C}$ | 100             | $\mu\text{A}$    |
| $V_{FM}$    | max. peak forward voltage drop @ rated $I_{F(AV)}$                           | 1.2             | V                |
| $R_{thJC}$  | max. thermal resistance junction to case                                     | 1               | K/W              |
| $T_{VJ}$    | operating junction temperature                                               | -65... + 150    | $^\circ\text{C}$ |
| $T_{VJM}$   | max. virtual junction temperature                                            | 150             | $^\circ\text{C}$ |
| $T_{stg}$   | storage temperature                                                          | -65... + 150    | $^\circ\text{C}$ |
| $M_d$       | mounting torque                                                              | min. 0.14       | mkg              |
|             | (non-lubricated threads)                                                     | max. 0.17       | mkg              |
| Weight      | typ.                                                                         | 7               | g                |

### DO - 4

PSM/PSMR 16



### Features

- All Diffused Series
- Available in Normal & Reverse Polarity
- Industrial Grade
- Available in Avalanche Characteristic