

### Silicon Power Diode

PSM/PSMR 100K

PSMF/PSMFR 100K

$$I_{F(AV)} = 100 \text{ A}$$

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

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             |
|---|--|---|--|------------------|
| 100   | 70   | 100   | 40   | PSM/PSMR 100/01K |
| 200   | 140  | 200   | 80   | PSM/PSMR 100/02K |
| 400   | 280  | 400   | 160  | PSM/PSMR 100/04K |
| 600   | 420  | 600   | 240  | PSM/PSMR 100/06K |
| 800   | 560  | 800   | 320  | PSM/PSMR 100/08K |
| 1000  | 700  | 1000  | 400  | PSM/PSMR 100/10K |
| 1200  | 840  | 1200  | 480  | PSM/PSMR 100/12K |
| 1400  | 980  | 1400  | 560  | PSM/PSMR 100/14K |
| 1600  | 1120   | 1600  | 640  | PSM/PSMR 100/16K |

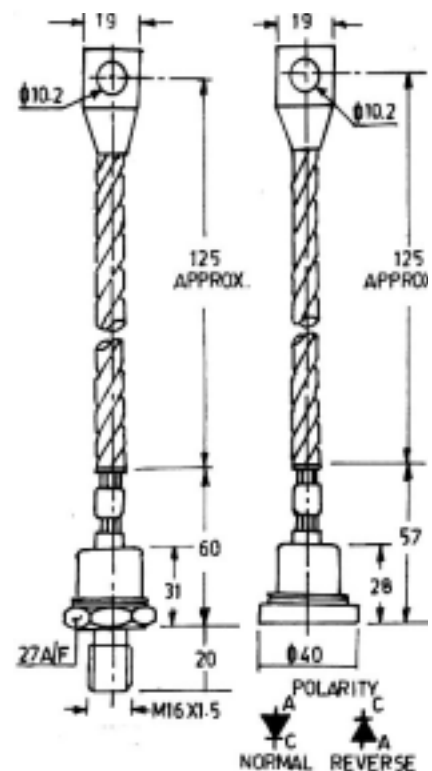
  

| with terminal lead |                    |
|--------------------|--------------------|
| PSMF/PSMFR 100/01K | PSMF/PSMFR 100/02K |
| PSMF/PSMFR 100/04K | PSMF/PSMFR 100/06K |
| PSMF/PSMFR 100/08K | PSMF/PSMFR 100/10K |
| PSMF/PSMFR 100/12K | PSMF/PSMFR 100/14K |
| PSMF/PSMFR 100/16K |                    |

| Symbol        | Conditions   | Maximum Ratings               |
|---------------|--|-------------------------------|
| $I_{F(AV)}$   | $T_C = 150^\circ\text{C}$  | 100 A                         |
| $I_{FSM}$     | $T_{VJ} = 45^\circ\text{C}$ $t = 10 \text{ ms}$                              | 2300 A                        |
| $I_{FRM}$     | max. peak cycle repetitive surge current                                     | 500 A                         |
| $I^2t$        | max. $I^2t$ rating (non-rep.) for 5 to 10 ms                                 | 26000 A <sup>2</sup> s        |
| $I_{R(AV)}$   | max. average reverse leakage current at $V_{RRM}$ ; $T_C = 25^\circ\text{C}$ | 200 $\mu\text{A}$             |
| $V_{FM}$      | max. peak forward voltage drop @ rated $I_{F(AV)}$                           | 1.4 V                         |
| $R_{thJC}$    | max. thermal resistance junction to case                                     | 0.40 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... + 200 $^\circ\text{C}$ |
| $M_d$         | mounting torque  | min. 2.0 mkg<br>max. 3.0 mkg  |
| <b>Weight</b> | typ.   | 150 g                         |

### DO - 8

PSM/PSMR 100    PSMF/PSMFR 100



### Features

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