

### Silicon Power Diode

**PSM/PSMR 40L**  
**PSM/PSMR 40K**

$I_{F(AV)} = 40 \text{ A}$   
 $V_{RRM} = 100 - 1600 \text{ V}$

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   | without terminal lead |
| 200   | 140  | 200   | 80   | without terminal lead |
| 400   | 280  | 400   | 160  | without terminal lead |
| 600   | 420  | 600   | 240  | without terminal lead |
| 800   | 560  | 800   | 320  | without terminal lead |
| 1000  | 700  | 1000  | 400  | without terminal lead |
| 1200  | 840  | 1200  | 480  | without terminal lead |
| 1400  | 980  | 1400  | 560  | without terminal lead |
| 1600  | 1120   | 1600  | 640  | without terminal lead |
|   |  |   |  | with terminal lead    |
|   |  |   |  | PSM/PSMR 40/01K       |
|   |  |   |  | PSM/PSMR 40/02K       |
|   |  |   |  | PSM/PSMR 40/04K       |
|   |  |   |  | PSM/PSMR 40/06K       |
|   |  |   |  | PSM/PSMR 40/08K       |
|   |  |   |  | PSM/PSMR 40/10K       |
|   |  |   |  | PSM/PSMR 40/12K       |
|   |  |   |  | PSM/PSMR 40/14K       |
|   |  |   |  | PSM/PSMR 40/16K       |

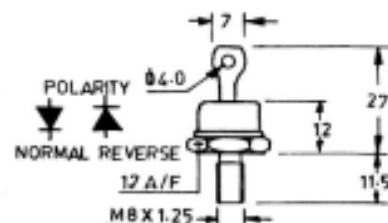
| Symbol        | Conditions   | Maximum Ratings              |
|---------------|--|------------------------------|
| $I_{F(AV)}$   | $T_C = 140^\circ\text{C}$  | 40 A                         |
| $I_{FSM}$     | $T_{VJ} = 45^\circ\text{C}$ $t = 10 \text{ ms}$                              | 500 A                        |
| $I_{FRM}$     | max. peak cycle repetitive surge current                                     | 200 A                        |
| $I^2t$        | max. $I^2t$ rating (non-rep.) for 5 to 10 ms                                 | 1200 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 $I_{F(AV)}$                           | 1.3 V                        |
| $R_{thJC}$    | max. thermal resistance junction to case                                     | 0.65 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. 0.4 mkg                 |
|               | (non-lubricated threads)   | max. 0.6 mkg                 |
| <b>Weight</b> | PSM/PSMR 40L   | typ. 13.5 g                  |
| <b>Weight</b> | PSM/PSMR 40K   | typ. 30 g                    |

#### Features

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

### DO - 5

PSM/PSMR 40L



PSM/PSMR 40K

