

Silicon Power Diode

PSM/PSMR 320K

$$I_{F(AV)} = 320 \text{ A}$$

$$V_{RRM} = 100 \text{ V to } 2000 \text{ V}$$

Preliminary Data Sheet

V_{RRM} max. repetitive peak voltage (V)	$V_{R(RMS)}$ max. RMS reverse voltage (V)	V_R max. DC blocking voltage (V)	recommended RMS working voltage (V)	Type
100	70	100	40	PSM/PSMR 320/01K
200	140	200	80	PSM/PSMR 320/02K
400	280	400	160	PSM/PSMR 320/04K
600	420	600	240	PSM/PSMR 320/06K
800	560	800	320	PSM/PSMR 320/08K
1000	700	1000	400	PSM/PSMR 320/10K
1200	840	1200	480	PSM/PSMR 320/12K
1400	980	1400	560	PSM/PSMR 320/14K
1600	1120	1600	640	PSM/PSMR 320/16K
1800	1260	1800	720	PSM/PSMR 320/18K
2000	1400	2000	800	PSM/PSMR 320/20K

Symbol	Conditions	Maximum Ratings	
$I_{F(AV)}$	$T_{vj} = 150^\circ\text{C}$	320	A
I_{FSM}	max. peak (one-cycle) non-repetitive surge current $T_{vj} = 45^\circ\text{C}$ $t = 10 \text{ ms}$	5500	A
I_{FRM}	max. peak repetitive surge current	1500	A
I^2t	max. I^2t rating (non rep.) for 5 to 10 ms	180000	A^2s
$I_{R(AV)}$	$V_R = V_{RRM}, T_C = 25^\circ\text{C}$	5	mA
V_{FM}	$I_F = 320 \text{ A}$	PSM/PSMR 320/01K to PSM/PSMR 320/16K	1.65 V
		PSM/PSMR 320/18K and PSM/PSMR 320/20K	1.75 V
$R_{th(j-c)}$	max. thermal resistance junction to case	0.15	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 (non-lubricated threads)	min.	3.2 mkg
		max.	3.75 mkg
Weight	typ.	260	g

Features

- All Diffused Series
- Industrial grade
- Device conforms to IS 3700 (iii) & IS 440 (iii)
- Outline conforms to IS 5000
- Metric and UNF thread type

Package Outline

(All dimensions in mm)

