800V With High Tj Ultra Low VF Bridge Rectifier

Voltage	800 V	Current	4A

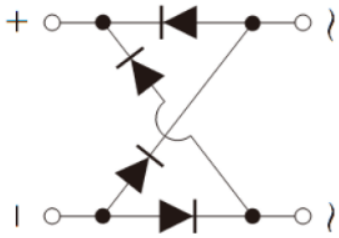
M4

Features

- Oxide planar chip junction
- Low forward voltage drop (VF@0.66V)
- Low leakage current (IR@20uA)
- Lead free in compliance with EU RoHS 2.0
- Halogen-free according to IEC 61249 standard

Mechanical Data

- Case : M4 Package
- Terminals : Solderable per MIL-STD-750, Method 2026
- Approx. Weight : 0.29 grams



Application

- PD Charger
- NB Adapter
- NB Gaming Power
- High Efficiency Adapter

Key Parameters	
Parameter	**Value**
V_{RRM}	800V
$I_F(AV)$	4A
I_{FSM}	135A
V_F@175˚C	0.66V
I_R	1uA
T_J max.	175 ˚C
Package	M4

Maximum Ratings and Thermal Characteristics (T_A = 25 °C unless otherwise noted)

PARAMETER		SYMBOL	LIMIT	UNITS
Maximum Repetitive Peak Reverse Voltage		V_{RRM}	800	V
Maximum RMS Voltage		V_{RMS}	560	V
Maximum DC Blocking Voltage		V_{DC}	800	V
Maximum Average Forward Current	With heatsink	$I_{F(AV)}$	4	A
	Without heatsink		2	
Peak Forward Surge Current : 8.3 ms Single Half Sine-Wave Superimposed On Rated Load	@ T_A = 25 °C	I_{FSM}	135	A
	@ T_A = 125 °C		108	
Peak Forward Surge Current : 1.0 ms Single Half Sine-Wave Superimposed On Rated Load	@ T_A = 25 °C	I_{FSM}	250	A
	@ T_A = 125 °C		200	
I^2t rating for fusing (t = 8.3ms)		I^2t	75.6	A^2S
Typical Junction Capacitance Measured at 1 MHZ And Applied V_R = 4 V		C_J	55	pF
Typical Thermal Resistance (Note 1)		$R_{\theta JA}$	22	°C/W
		$R_{\theta JL}$	12	
		$R_{\theta JC}$	6	
Operating Junction And Storage Temperature Range		T_J, T_{STG}	-55~175	°C

PARAMETER	SYMBOL	TEST CONDITION	MIN.	TYP.	MAX.	UNITS
Forward Voltage	V_F	I_F = 2 A, T_J = 25 °C	-	0.85	0.92	V
		I_F = 2 A, T_J = 125 °C	-	0.72	-	
Reverse Current	I_R	V_R = 800 V, T_J = 25 °C	-	0.1	1	uA
		V_R = 800 V, T_J = 125 °C	-	20	-	

NOTES :

1. Mounted on a FR4,100x100x1.6mm ,2oz copper pad area.

TYPICAL CHARACTERISTIC CURVES

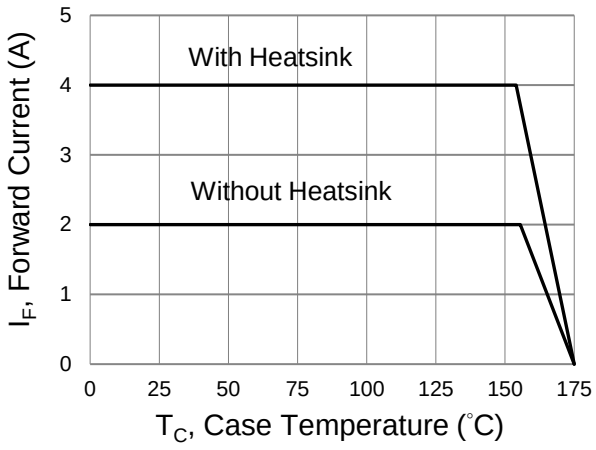


Fig.1 Forward Current Derating Curve

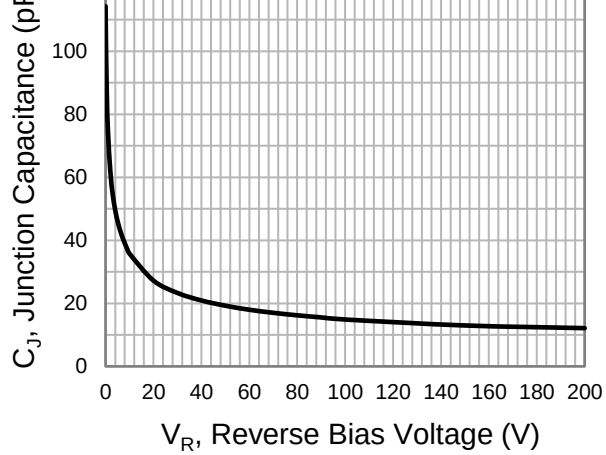


Fig.2 Typical Junction Capacitance

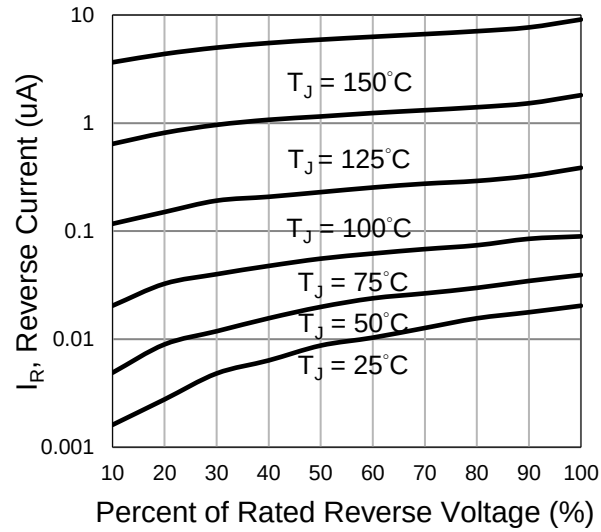


Fig.3 Typical Reverse Characteristics

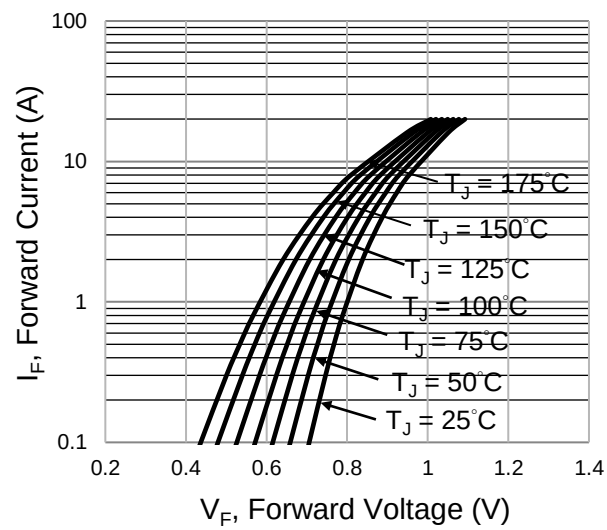


Fig.4 Typical Forward Characteristics

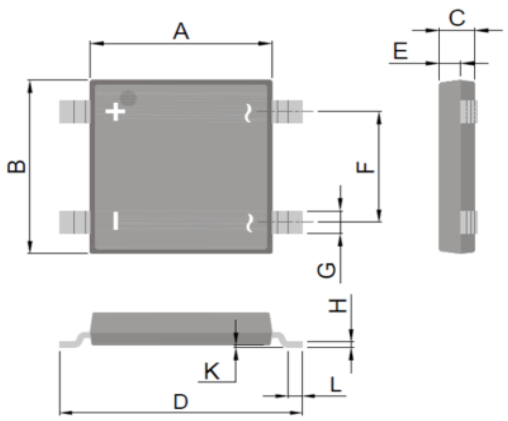
Product and Packing Information

Part No.	Package Type	Packing Type	Marking
PMS408HULV	M4	3K pcs / 13” reel	PMS408HULV

Packaging Information & Mounting Pad Layout

M4 Dimension

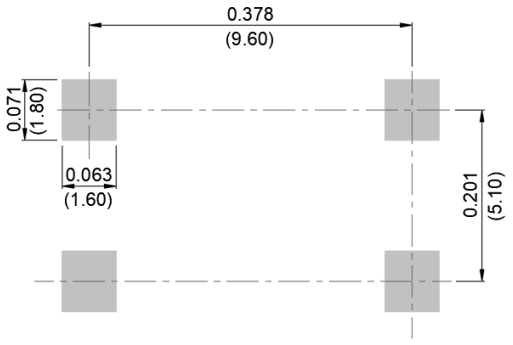
Unit: inch(mm)



M4 Dimension.Unit:Inch(mm)				
Dim	Unit (Inch)		Unit (mm)	
	Min	Max	Min	Max
A	0.301	0.313	7.65	7.95
B	0.309	0.321	7.85	8.15
C	0.056	0.063	1.41	1.61
D	0.402	0.417	10.20	10.60
E	0.032	0.040	0.81	1.01
F	0.197	0.205	5.00	5.20
G	0.035	0.047	0.90	1.20
H	0.006	0.014	0.15	0.35
K	0.000	0.006	0.00	0.15
L	0.022	0.041	0.55	1.05

M4 Pad Layout

Unit: inch(mm)



Disclaimer

- Reproducing and modifying information of the document is prohibited without permission from Panjit International Inc..
- Panjit International Inc. reserves the rights to make changes of the content herein the document anytime without notification. Please refer to our website for the latest document.
- Panjit International Inc. disclaims any and all liability arising out of the application or use of any product including damages incidentally and consequentially occurred.
- Panjit International Inc. does not assume any and all implied warranties, including warranties of fitness for particular purpose, non-infringement and merchantability.
- Applications shown on the herein document are examples of standard use and operation. Customers are responsible in comprehending the suitable use in particular applications. Panjit International Inc. makes no representation or warranty that such applications will be suitable for the specified use without further testing or modification.
- The products shown herein are not designed and authorized for equipments requiring high level of reliability or relating to human life and for any applications concerning life-saving or life-sustaining, such as medical instruments, transportation equipment, aerospace machinery et cetera. Customers using or selling these products for use in such applications do so at their own risk and agree to fully indemnify Panjit International Inc. for any damages resulting from such improper use or sale.
- Since Panjit uses lot number as the tracking base, please provide the lot number for tracking when complaining.