# **MB High Voltage Series**

# Vishay High Power Products

### Single Phase Bridge (Power Modules), 25 A/35 A



FORWARD CONDUCTION							
PARAMETER	SYMBOL		TEST CONDITION	IS	26MB-A	36MB-A	UNITS
Maximum DC output current at case temperature	I <sub>O</sub>	Resistive or inductive load		25	35	А	
		Capacitive load			20		28
					65	60	°C
Maximum peak, one cycle non-repetitive forward current	I <sub>FSM</sub>	t = 10 ms	No voltage reapplied	Initial T <sub>J</sub> =	400	475	Α
		t = 8.3 ms			420	500	
		t = 10 ms	100 % V <sub>RRM</sub>		335	400	
		t = 8.3 ms	reapplied		350	420	
Maximum I <sup>2</sup> t for fusing	l <sup>2</sup> t	t = 10 ms	No voltage reapplied		790	1130	- A <sup>2</sup> s
		t = 8.3 ms			725	1030	
		t = 10 ms	100 % V <sub>RRM</sub> reapplied		560	800	
		t = 8.3 ms			512	730	
Maximum I <sup>2</sup> √t for fusing	I²√t	$I^{2}t$ for time $t_{x} = I^{2}\sqrt{t} \times \sqrt{t_{x}}$ ; $0.1 \le t_{x} \le 10$ ms, $V_{RRM} = 0$ V		5.6	11.3	kA²√s	
Low level of threshold voltage	V <sub>F(TO)1</sub>	(16.7 % x $\pi$ x $I_{F(AV)}$ < $I$ < $\pi$ x $I_{F(AV)}$ ), $T_J$ maximum			0.70	0.74	V
High level of threshold voltage	V <sub>F(TO)2</sub>	$(I > \pi \times I_{F(AV)}), T_J$ maximum		0.75	0.79		
Low level forward slope resistance	r <sub>t1</sub>	$(16.7~\%~x~\pi~x~I_{F(AV)} < I < \pi~x~I_{F(AV)}),$ $T_J$ maximum			7.0	5.5	mΩ
High level forward slope resistance	r <sub>t2</sub>	$(I > \pi \times I_{F(AV)}), T_J$ maximum		6.4	5.2		
Maximum forward voltage drop	V <sub>FM</sub>	$T_J = 25 ^{\circ}\text{C}, I_F$ (26MB)	, I <sub>FM</sub> = 40 Apk		1.25	1.3	V
		$T_J = 25 ^{\circ}\text{C}, I_F$ (36MB)	<sub>M</sub> = 55 Apk	t <sub>p</sub> = 400 μs	1.20	1.0	V
Maximum DC reverse current per diode	I <sub>RRM</sub>	T <sub>J</sub> = 25 °C, at V <sub>RRM</sub>		10	10	μΑ	
RMS isolation voltage base plate	V <sub>ISOL</sub>	f = 50 Hz, t = 1 s		2700	2700	٧	

THERMAL AND MECHANICAL SPECIFICATIONS								
PARAMETER	SYMBOL	TEST CONDITIONS	26MB-A	36MB-A	UNITS			
Junction and storage temperature range	T <sub>J</sub> , T <sub>Stg</sub>		- 55 t	o 150	°C			
Maximum thermal resistance, junction to case per bridge	$R_{thJC}$		1.7	1.35	K/W			
Maximum thermal resistance, case to heatsink	R <sub>thCS</sub>	Mounting surface, smooth, flat and greased	0.2		IQW			
Mounting torque ± 10 %		Bridge to heatsink	2	.0	Nm			
Approximate weight			2	0	g			

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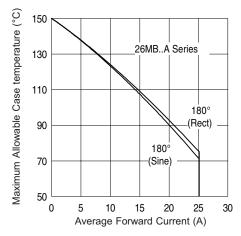


Fig. 1 - Current Ratings Characteristics

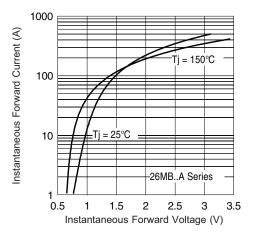


Fig. 2 - Forward Voltage Drop Characteristics

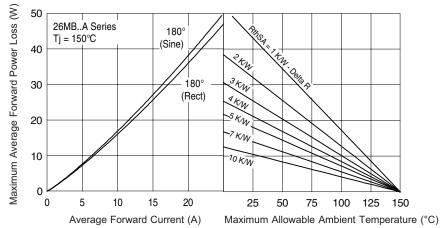


Fig. 3 - Total Power Loss Characteristics

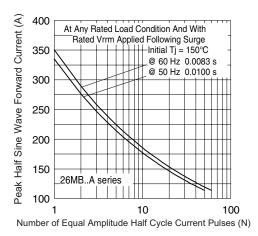


Fig. 4 - Maximum Non-Repetitive Surge Current

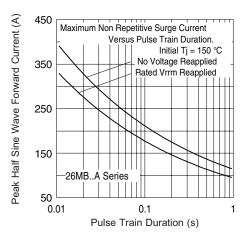


Fig. 5 - Maximum Non-Repetitive Surge Current

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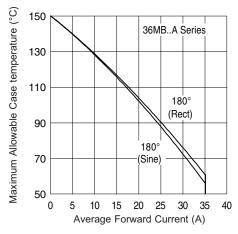


Fig. 6 - Current Ratings Characteristics

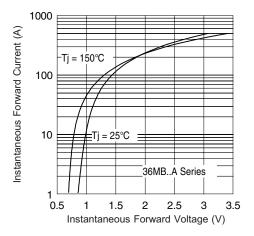


Fig. 7 - Forward Voltage Drop Characteristics

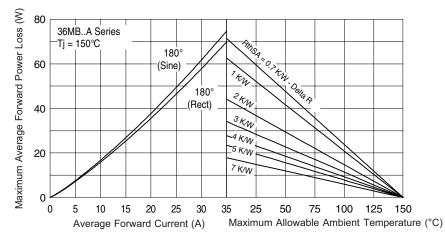


Fig. 8 - Total Power Loss Characteristics

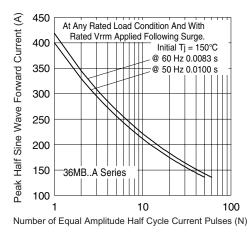


Fig. 9 - Maximum Non-Repetitive Surge Current

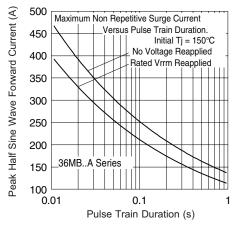


Fig. 10 - Maximum Non-Repetitive Surge Current

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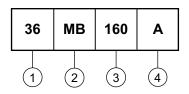
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Single Phase Bridge (Power Modules), 25 A/35 A Vishay High Power Products

#### **ORDERING INFORMATION TABLE**

**Device code** 



26 = 25 A (average) 36 = 35 A (average)

2 - Circuit configuration:

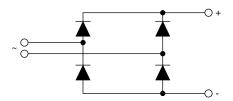
MB = Single phase european coding

Voltage code x 10 = V<sub>RRM</sub>

4 - Diode bridge rectifier:

A = 26 MB, 36MB series

#### **CIRCUIT CONFIGURATION**



LINKS TO RELATED DOCUMENTS				
Dimensions	http://www.vishay.com/doc?95326			

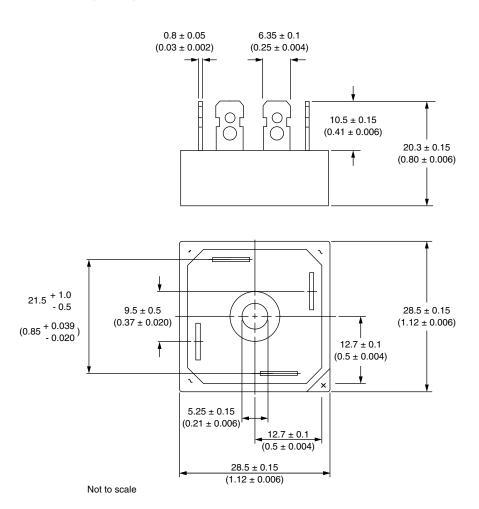
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# Vishay Semiconductors

### **D-34**

#### **DIMENSIONS** in millimeters (inches)



Suggested plugging force: 200 N max; axially applied to fast-on terminals

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