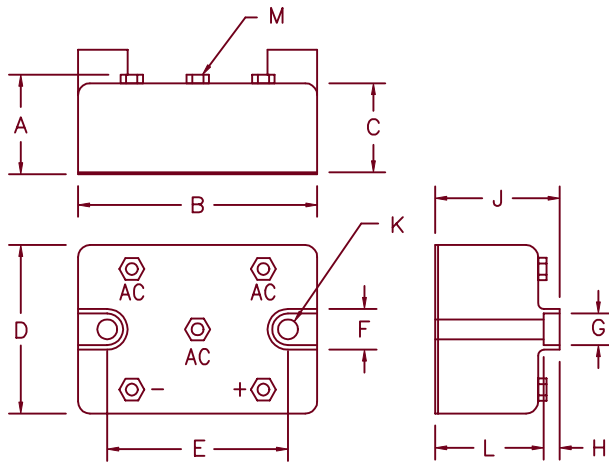


# 3 Phase Bridge Modules EH80, EH100



Dim.	Inches		Millimeter		Notes
	Minimum	Maximum	Minimum	Maximum	
A	—	1.10	—	27.94	
B	2.25	2.40	57.15	60.96	
C	.930	.950	23.62	24.13	
D	1.740	1.760	44.19	44.70	
E	1.883	1.887	47.82	47.92	
F	.495	.505	12.57	12.83	
G	.325	.335	8.25	8.50	
H	.215	.225	5.46	5.71	
J	1.270	1.300	32.25	33.02	
K	.198	.208	5.02	5.28	Dia.
L	1.055	1.075	26.79	27.30	
M	#10–32 Tapped Holes				

## Microsemi Catalog Number

EH8002ZI*	EH10002ZI*
EH8004ZI*	EH10004ZI*
EH8006ZI*	EH10006ZI*
EH8008ZI*	EH10008ZI*
EH8010ZI*	EH10010ZI*
EH8012ZI*	EH10012ZI*

## Repetitive Peak Reverse Voltage

200
400
600
800
1000
1200

\*Add S for Transient Suppressor across output

- Integral Transient Suppression Available
- High Terminal-to-base Isolation
- Available to 1200V
- Mounting Bolts Isolated From Power Terminals

## Electrical Characteristics

	EH80	EH100	
Maximum DC output current, 3-phase	$I_o$ 80A	100A	$T_C = 135^\circ\text{C}$
Maximum surge current per diode	$I_{FSM}$ 1050A	1500A	8.3ms, half sine, $T_J = 175^\circ\text{C}$
Max. $I^2t$ for fusing	$I^2t$ 4600A <sup>2</sup> S	9300A <sup>2</sup> S	
Max. peak forward voltage per diode	$V_{FM}$ 1.2V	1.1V	@ $I_o$ ; $T_J = 25^\circ\text{C}$ *
Max. peak reverse current per diode	$I_{RM}$ —	4mA	$V_{RRM}$ , $T_J = 150^\circ\text{C}$
Max. peak reverse current per diode	$I_{RM}$ —	20 $\mu\text{A}$	$V_{RRM}$ , $T_J = 25^\circ\text{C}$
Minimum isolation voltage	$V_{ISOL}$ 1500V <sub>RMS</sub>		any terminal-to-base

\*Pulse Test: Pulse width 300  $\mu\text{sec}$  duty cycle 2%

## Thermal and Mechanical Characteristics

Storage temp range	$T_{STG}$	-55°C to 175°C
Operating junction temp range	$T_J$	-55°C to 175°C
Max thermal resistance per diode	EH80 $R_{\theta JC}$ EH100 $R_{\theta JC}$	1.0°C/W Junction to case 0.85°C/W Junction to case
Mounting torque		25–30 lb-in
Typical thermal resistance (greased)	$R_{\theta CS}$	0.07°C/W Case to sink
Typical Weight		5.8 ounces (165 grams)



800 Hoyt Street  
Broomfield, CO. 80020  
PH: (303) 469-2161  
FAX: (303) 466-3775  
www.microsemi.com

1-10-01 Rev. 2

# EH80, EH100

Figure 1  
Typical Forward Characteristics – Per Diode

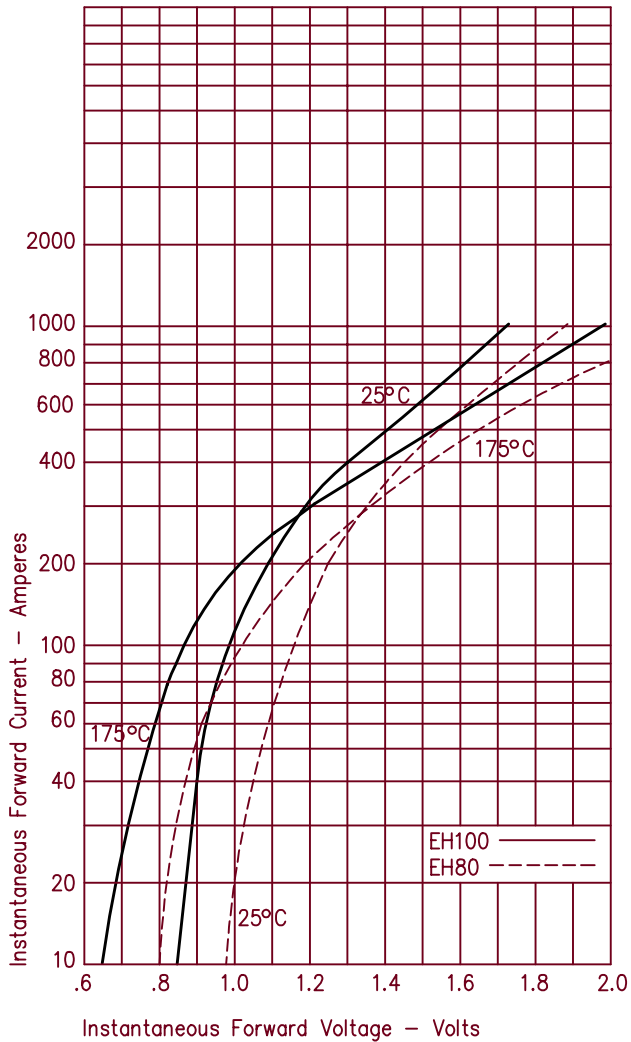


Figure 3  
Maximum Nonrepetitive Surge Current – Per Diode

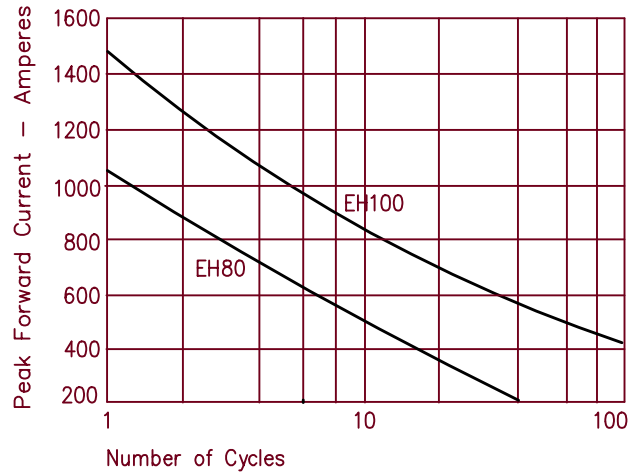


Figure 2  
Forward Current Derating

