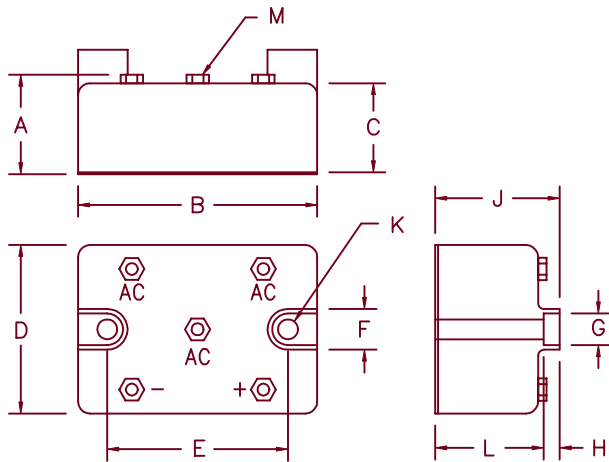


3 Phase Bridge Modules EH80, EH100



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

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

*Add S for Transient Suppressor across output

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 ² S	9300A ² 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 μA	V_{RRM} , $T_J = 25^\circ\text{C}$
Minimum isolation voltage	V_{ISOL}	1500V	RMS	any terminal-to-base

*Pulse Test: Pulse width 300 μsec 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 θ_{JC} EH100 R θ_{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 θ_{CS}	0.07°C/W Case to sink
Typical Weight		5.8 ounces (165 grams)

EH80, EH100

Figure 1
Typical Forward Characteristics – Per Diode

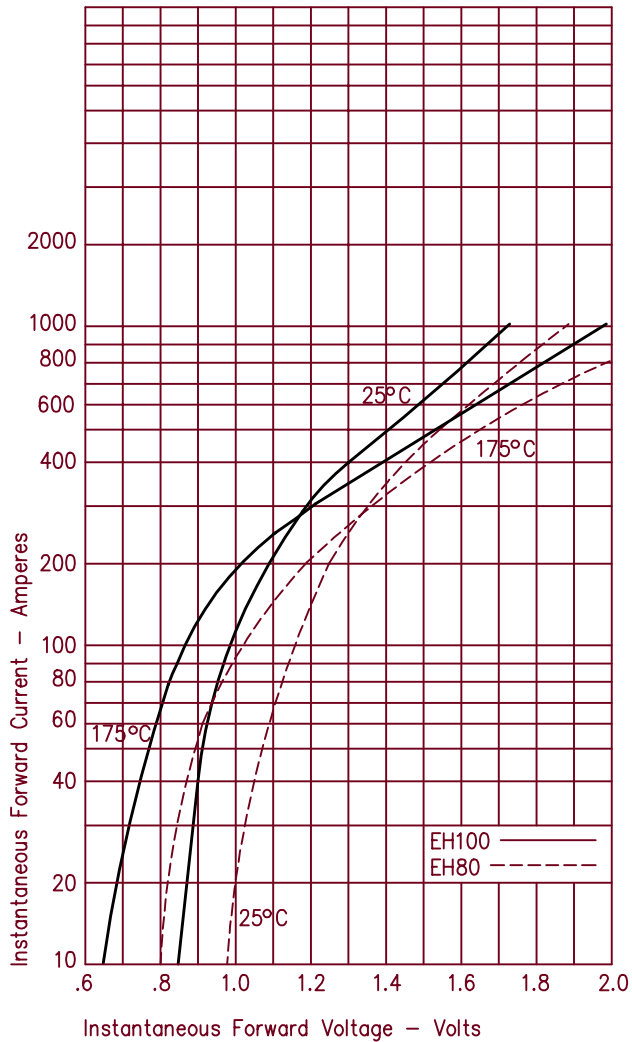


Figure 3
Maximum Nonrepetitive Surge Current – Per Diode

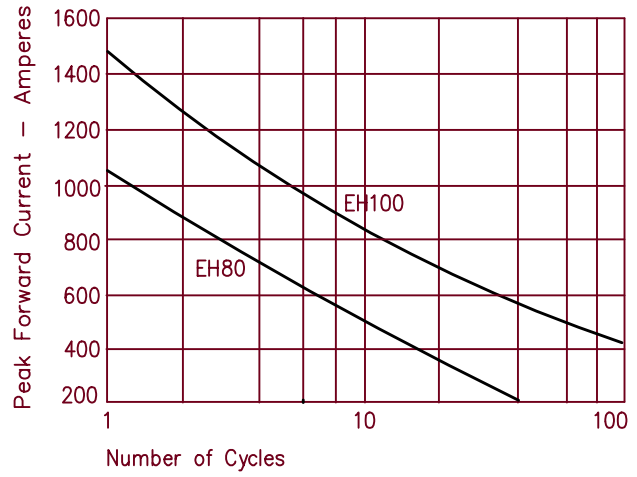


Figure 2
Forward Current Derating

