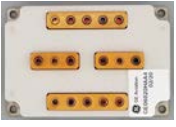




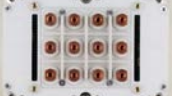



Silicon Carbide (SiC) Power



	Module Type	Part Number	Voltage Rating (V)	Current /Switch (A)	$R_{DS(on)}$ @25 °C (mΩ)	Thermal Cooling System (K/W)	Max Junction Temp	Size L x W x H (mm)
	Full Bridge	GE06020HAA4	650	200	N/A	Standard Baseplate $R_{th(j-c)} = 0.2$	175°C	69 mm
	Center Tap	GE06040GAA4	650	400	N/A	Standard Baseplate $R_{th(j-c)} = 0.1$		
	Dual	GE12047BCA3	1200	475	3.90	Standard Baseplate $R_{th(j-c)} = 0.12$	175°C	48 mm
		GE17042BCA3	1700	425	4.75			
	1/2 Bridge	GE12047CCA3	1200	475	3.90	Standard Baseplate $R_{th(j-c)} = 0.12$	175°C	48 mm
		GE17042CCA3	1700	425	4.75			
	1/2 Bridge	GE12090CDA3	1200	900	2.15	Standard Baseplate $R_{th(j-c)} = 0.055$	175°C	100 mm
		GE17080CDA3	1700	800	2.60			
	1/2 Bridge	GE12160CEA3	1200	1600	1.35	Standard Baseplate $R_{th(j-c)} = 0.034$	175°C	90 mm
		GE17140CEA3	1700	1400	1.60			
	6 Switch	GE12050HEA3	1200	6 x 500	3.90	Standard Baseplate $R_{th(j-c)} = 0.1$	175°C	90 mm
		GE17045HEA3	1700	6 x 450	4.75			
	6 Pack (3 phase)	GE12050EEA3	1200	3 x 500	3.90	Standard Baseplate $R_{th(j-c)} = 0.1$	175°C	90 mm
		GE17045EEA3	1700	3 x 450	4.75			

Note: All current ratings are for AlSiC Baseplates. Copper Baseplates yield 10% higher current rating.

GE Aviation Conversion and Control Systems –SiC power modules are produced at the State-of-the-Art, Wide Band Gap development and manufacturing facility in Pompano Beach, Florida. For more information and pricing on standard and custom designed modules for environmentally demanding applications, contact SiC Enquiries via: SiC.Products@ge.com

Find more information about GE's silicon carbide product line at the link below.

<https://www.geaviation.com/military/systems/silicon-carbide>

Silicon Carbide (SiC) Power

Module Part Numbering Code

Pompano Beach Fab

GEVVIII EPQN

Voltage rating = First two significant digits. (12=1200, 17=1700, 33=3300)

Current rating = III x10 = Switch rating in amps @25C case temperature.

E = Electrical Configuration

- A Single
- B Dual
- C 1/2 Bridge
- D 1/2 Bridge with Diodes
- E Six Pack
- F Full bridge
- G Rectifier – Center Tap
- H Rectifier – Full Bridge
- I Reserved

P = Package Configuration

- A Wirebond
- B Single POL Tile
- C Two POL Tiles
- D Four POL Tiles
- E Six POL Tiles
- F Reserved

Q = Package Material Grade

- A Si₃N₄ on AlSiC
- B Si₃N₄ on Copper
- C Si₃N₄ on AlG
- D AlN on Copper
- E Insulated Metal Substrate (IMS)
- F Reserved

N = Generation of Die

Examples

Dual Module with 1700V Gen3 Die; 400A current rating; Si₃N₄ on AlSiC Baseplate GE17040BCA3

Six Pack Module with 1700V Gen3 Die; 400A current rating; 6 POLs; Si₃N₄ on Cu Baseplate GE17040EEB3

1/2 Bridge Module with 1200V Gen3 Die; 1600A current rating; 6 POLs; Si₃N₄ on AlSiC BP GE12160CEA3



GE Aviation

2705 Gateway Drive

Pompano Beach, Florida 33069 USA

954-984-7000

1000 MacArthur Highway

Bohemia, New York 11716 USA

631-467-5500

Part Number	Mass (Lbs. / kg)
GE06020HAA4	0.67 / 0.304
GE06040GAA4	0.67 / 0.304
GE12047BCA3	0.26 / 0.118
GE17042BCA3	0.26 / 0.118
GE12040DCA3	0.26 / 0.118
GE12047CCA3	0.26 / 0.118
GE17042CCA3	0.26 / 0.118
GE12012DAF3	0.40 / 0.181
GE12120DEA3	1.01 / 0.458
GE12160CEA3	1.01 / 0.458
GE17140CEA3	1.01 / 0.458
GE12090CDA3	1.66 / 0.755
GE17080CDA3	1.66 / 0.755
GE12050HEA3	1.14 / 0.517
GE17045HEA3	1.14 / 0.517
GE12050EEA3	1.20 / 0.544
GE17045EEA3	1.20 / 0.544