

Tech Alert

The SA306 may be used to replace the SA57. Both devices are available in the HU package and the SA306 is also available in the HR (slug down) package. The external connections are shown in the figures. The SA306 can be used in applications requiring the SA57 by connecting the SA306 using the SA57 external connections. Please refer to the figures showing external connections and to the Pin Description Tables.

Figure 3. SA306 HU Package Device Pin-Out Nomenclature

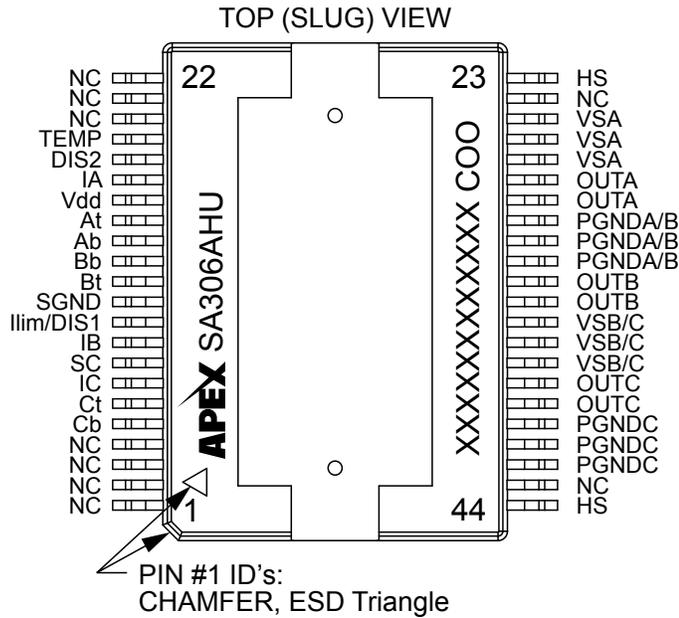


Figure 4. SA57 HU Package Device Pin-Out Nomenclature

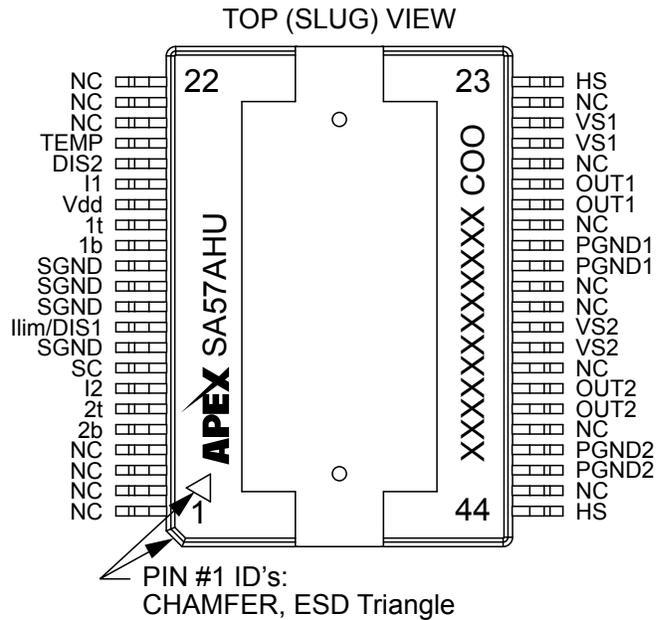


Figure 5. SA306 HR Package Device Pin-Out Nomenclature

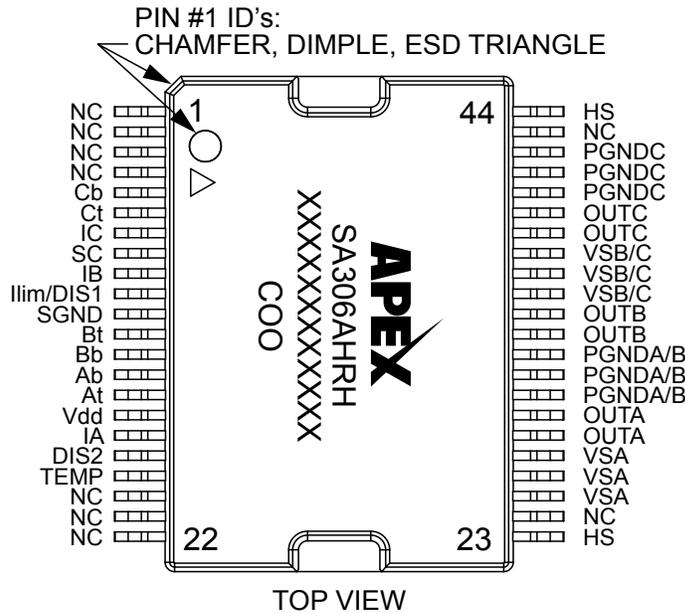


Figure 6. SA306 Block Diagram

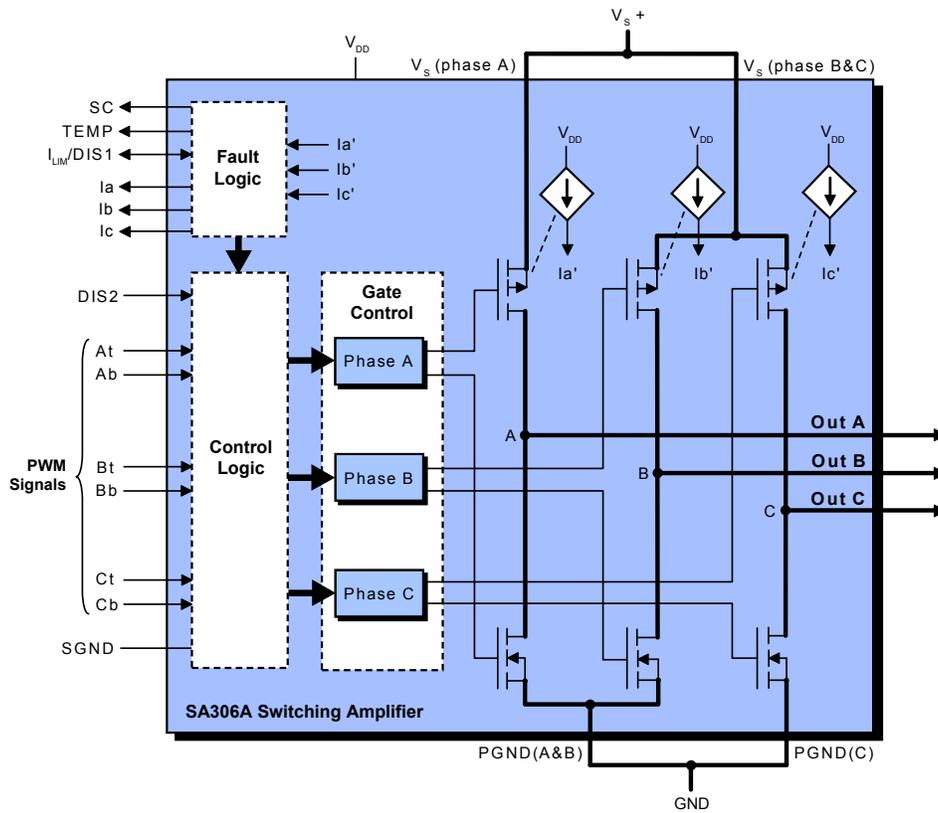
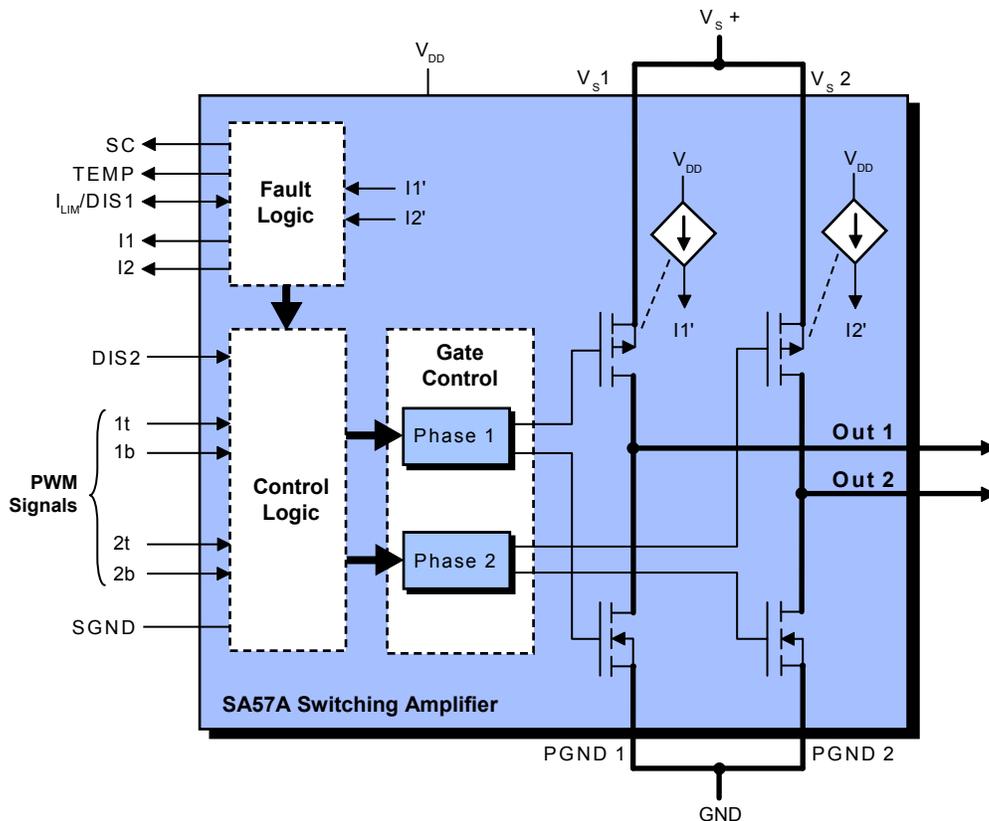


Figure 7. SA57 Block Diagram



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This table indicates the pin name correspondence between the SA306 and SA57.

SA306	SA57 Equivalent
V _s (phase A)	V _s (phase 1)
V _s (phase B&C)	V _s (phase 2)
PGND (phase A&B)	PGND (phase 1)
PGND (phase C)	PGND (phase 2)
Ia	I1
Ib	N/A (do not connect on SA306)
Ic	I2
At	1t
Ab	1b
Bt	N/A (do not connect on SA306)
Bb	N/A (do not connect on SA306)
Ct	2t
Cb	2b
OUT A	OUT 1
OUT B	N/A (do not connect on SA306)
OUT C	OUT 2

The SA306 will provide the same function as the SA57 when connected using the SA57 pin assignments as indicated in the tables.

Table 2.			
SA306 Connection Table HQ Package		SA57 Connection Table HQ Package	
Pin #	Pin Name	Pin #	Pin Name
29,30,31	V _s (phase A)	29,30,31	V _s (phase 1)
51,52,53	OUT C	51,52,53	OUT 2
55,56,57	PGND (phase C)	55,56,57	PGND (phase 2)
3	SC	3	SC
61	Cb	61	2b
63	Ct	63	2t
1	lc	1	I2
5	lb		
7	I _{LM} /DIS1	7	I _{LM} /DIS1
9	SGND	5,9,11,13	SGND
11	Bt		
13	Bb		
15	Ab	15	1b
17	At	17	1t
19	V _{DD}	19	V _{DD}
21	la	21	I1
23	DIS2	23	DIS2
25	TEMP	25	TEMP
42,43,44	OUT B		
46,47,48,49	V _s (phase B&C)		
33,34,35	OUT A	33,34,35	OUT 1
37,38,39,40	PGND (phase A&B)	37,38,39,40	PGND (phase 1)
26,27,58,59	HS	26,27,58,59	HS
2,4,6,8,10,12,14, 16,18,20,22,24,28, 32,36,41,45,50,54, 60,62,64	NC	2,4,6,8,10,12,14, 16,18,20,22,24,28, 32,36,41,42,43,44, 45,50,54,60,62,64	NC

Table 3.			
SA306 Connection Table HU Package		SA57 Connection Table HU Package	
Pin #	Pin Name	Pin #	Pin Name
25,26,27	V _s (phase A)	25,26	V _s (phase 1)
38,39	OUT C	38,39	OUT 2
40,41,42	PGND (phase C)	41,42	PGND (phase 2)
8	SC	8	SC
5	Cb	5	2b
6	Ct	6	2t
7	IC	7	I2
9	IB		
10	I _{LIM} /DIS1	10	I _{LIM} /DIS1
11	SGND	11,12,13	SGND
12	Bt		
13	Bb		
14	Ab	14	1b
15	At	15	1t
16	V _{DD}	16	V _{DD}
17	IA	17	I1
18	DIS2	18	DIS2
19	TEMP	19	TEMP
33,34	OUT B		
35,36,37	V _s (phase B&C)	35,36	V _s (phase 2)
28,29	OUT A	28,29	OUT 1
30,31,32	PGND (phase A&B)	31,32	PGND (phase 1)
23,44	HS	23,44	HS
1,2,3,4,20,21,22, 24,43	NC	1,2,3,4,20,21,22, 24,27,30,33,34,37, 40,43	NC

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