

AOB412 MOSFET 與 FDB6035AL MOSFET 效率比較

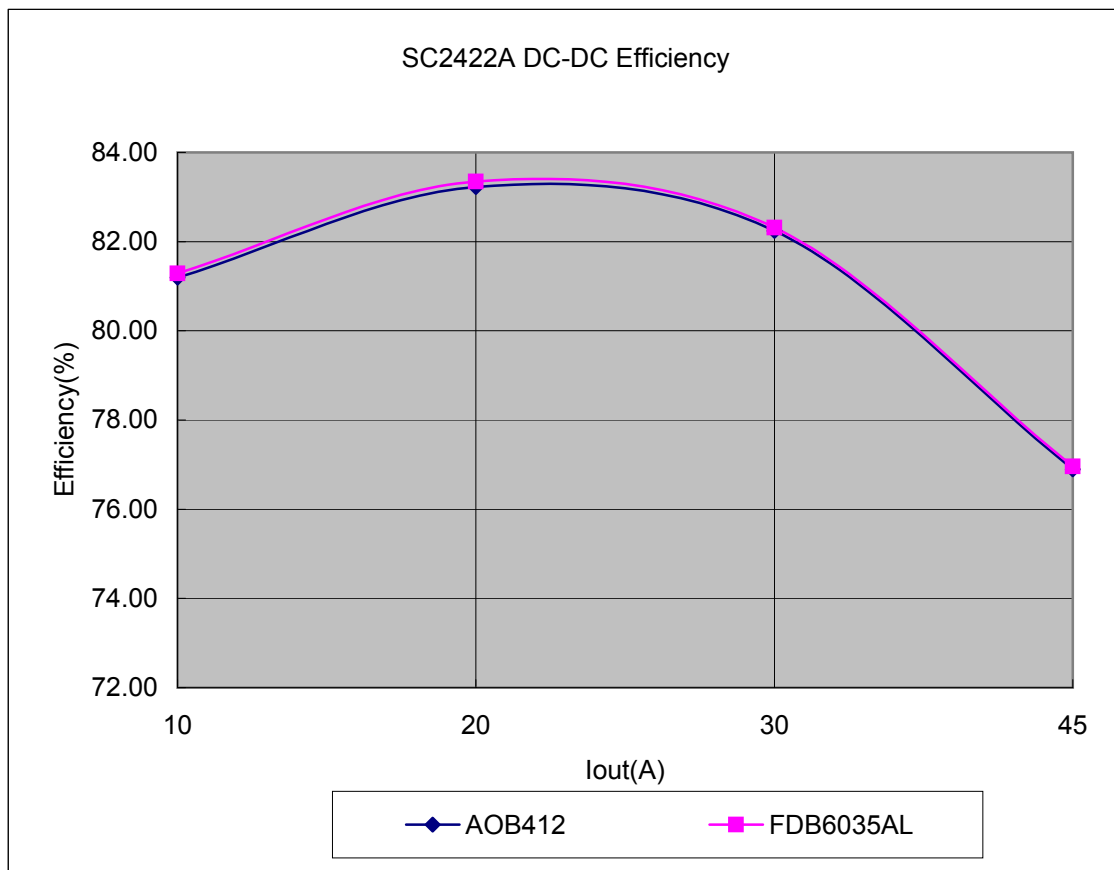
DEMO BOARD: SEMTECH SC2422A

- 1.Equipment: 1.OSCILLOSCOPE:TektronixTDS-3034
- 2.ELECTRONIC LOAD:CHROMA 63030
- 3.MULTIMETER:FLUKE 23
- 4.TEMPERATURE PROBE:FLUKE 80T-150U
- 5.TES3092DC/AC CLAMP METER

2.Efficiency test:

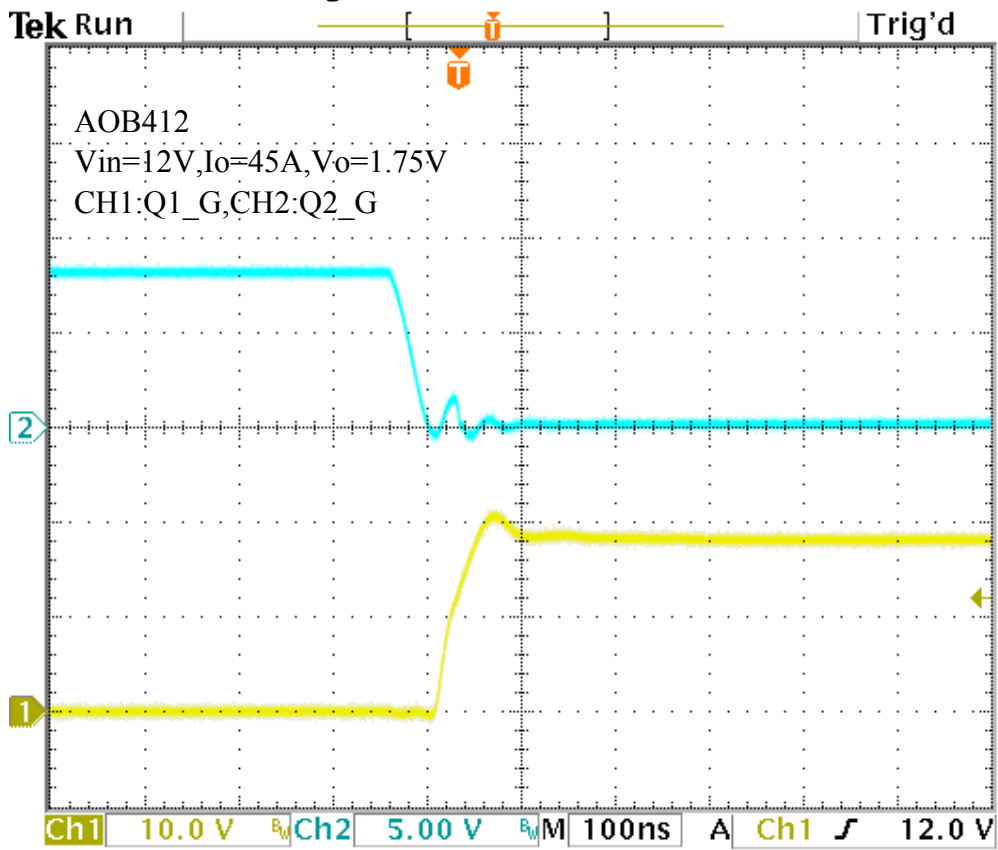
SC2422A Two phase PWM, Vcore=1.75V, Fs=220KHz

	12Vin	Iin(A)	Vcore	Iout(A)	Pin(W)	Pout(W)	Efficiency(%)
AOB412	11.94	1.8	1.745	10	21.492	17.45	81.19
	11.83	3.5	1.723	20	41.405	34.46	83.23
	11.7	5.3	1.7	30	62.010	51	82.24
	11.45	8.5	1.663	45	97.325	74.835	76.89
FDB6035AL	11.94	1.8	1.747	10	21.492	17.47	81.29
	11.82	3.5	1.724	20	41.370	34.48	83.35
	11.69	5.3	1.7	30	61.957	51	82.32
	11.44	8.5	1.663	45	97.240	74.835	76.96

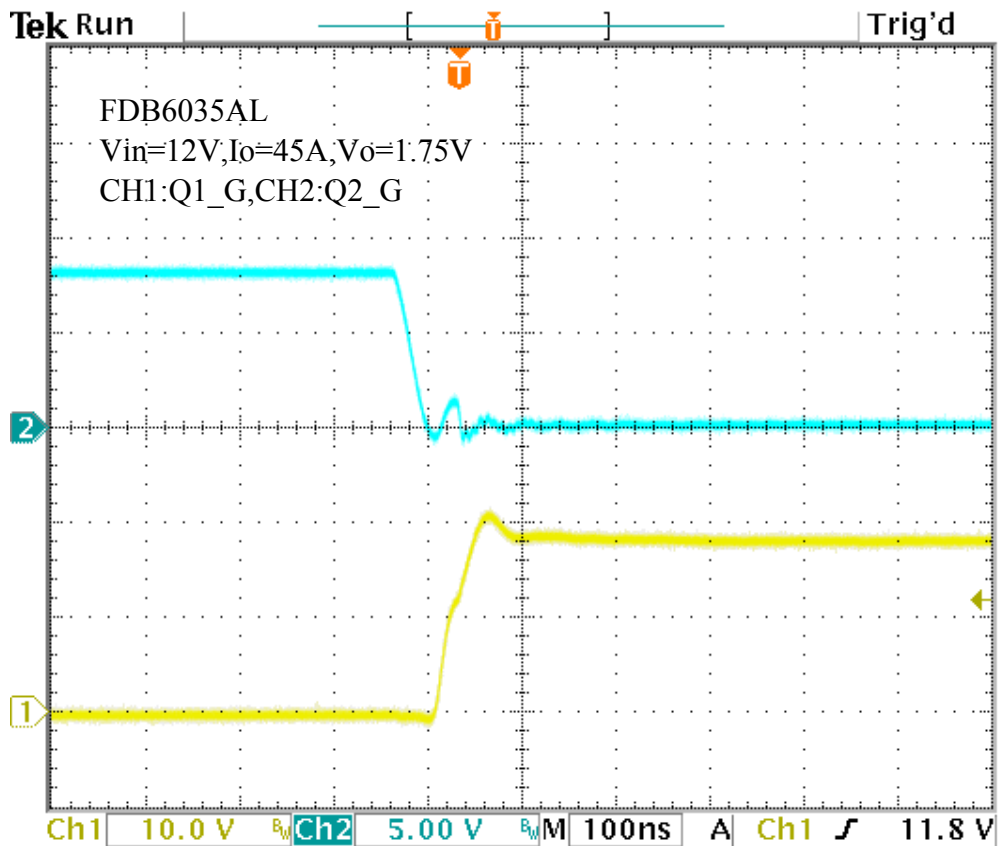


3.Shoot-through test

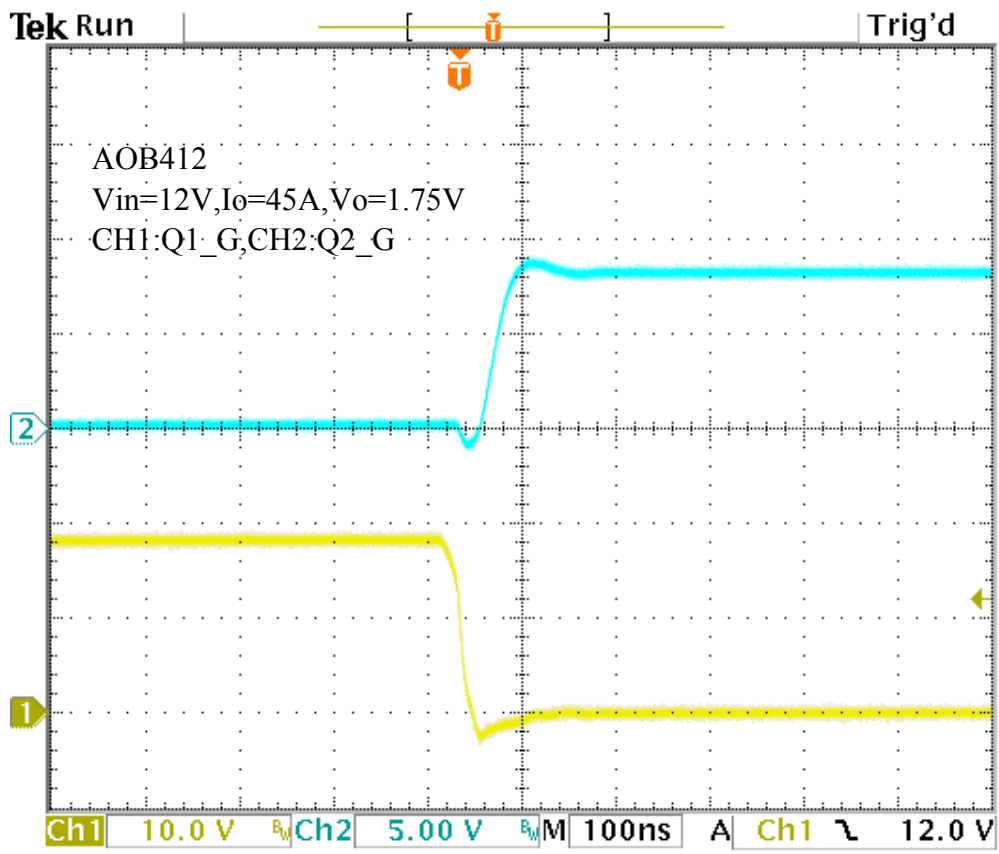
12V Vin Load 45A CH1:High side MOSFET CH2:Low side MOSFET



28 Dec 2001
10:08:16

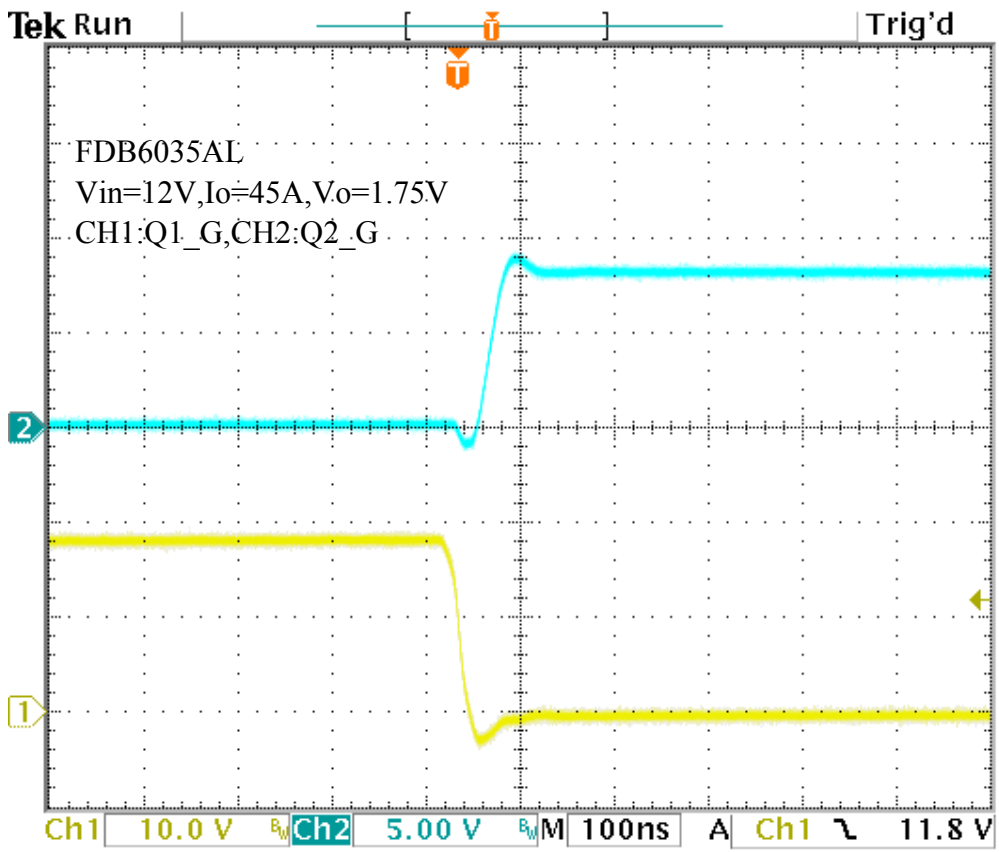


31 Dec 2001
09:54:00



28 Dec 2001
 10:08:32

43.40 %



31 Dec 2001
 09:54:12

43.40 %

4. Thermal test:

Ta=22 degrees

Test point	High side		Low side			
	Q1	Q4	Q2	Q3	Q5	Q6
AOB412	91	88	83	86	85	77
FDB6035AL	85	83	72	80	82	75

