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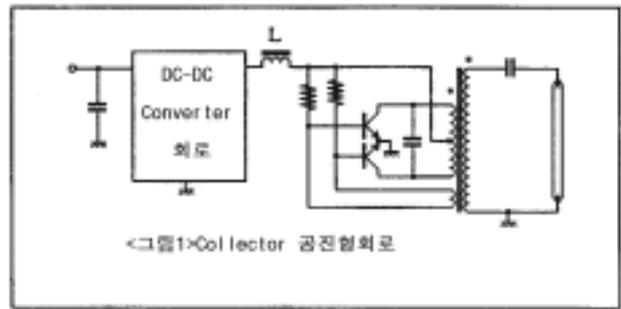
KCE Technical Information

	, BL Inverter	VOL 14
	2003.10.20	

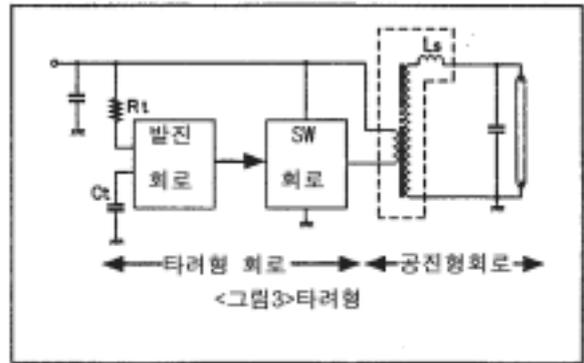
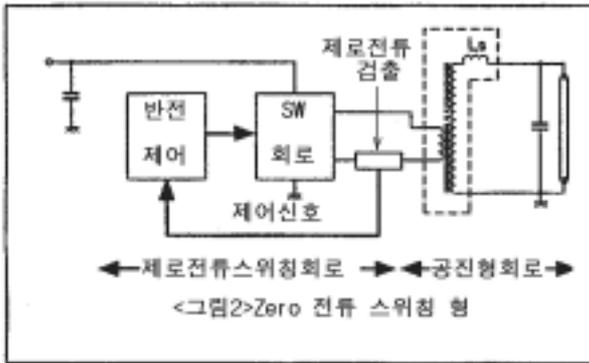
1. Inverter Point

1-1: Inverter

Inverter Collector
 가 < 1>
 Collector Royer
 Royer Transformer Core
 ()
 Collector
 Royer
 Collector 가



Inverter IC 가 (高度) Zero
 (ZCS) (他勵型) Inverter



Inverter

IC가

=

Image가

< 2>,< 3>

" "

AC Adapter

(主流)

Inverter

Inverter

(漏泄磁束型) Transformer 2

Inductance L_s 2

Transformer(Trans) 1

(力率)

Trans 1

가

Trans

Trans가

TR

가 가

TR ON

=ZCS(

:Zero Current Switching)

Image가

TR

TR

OFF

Zero

Zero

.Collector

가 TR

Inverter

Trans

ZCS Trans

1-2:

Inverter

Zero

(ZCS)

Zero

Zero

(相性:Matching)

Trans 2

가

Trans 1

가

가

가 .< 4>

"

가

, Trans 1

Trans 1

0deg 가

Trans

가

LC

Zero

가

Invertre

Collector

Trans 1

가

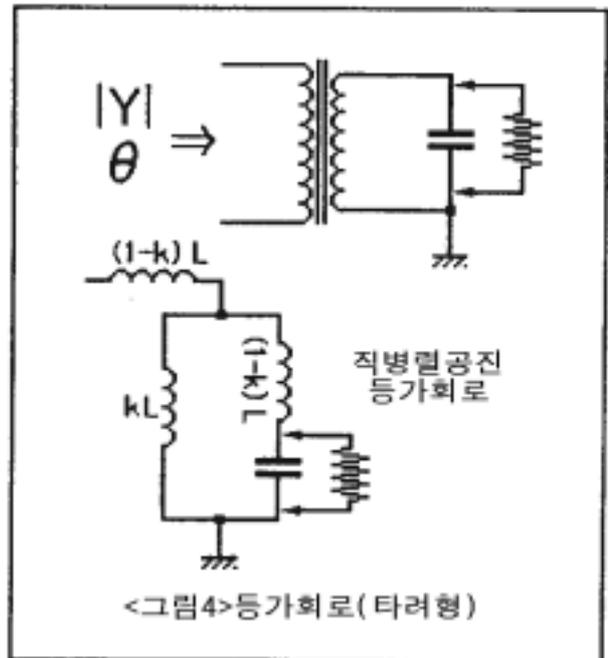
가

Trans 1

Collector

가

Collector



Collector 2 Trans 1 가
 Collector 가 1
 Collector 1 2 Decoupling()
 가 ,

1-3:

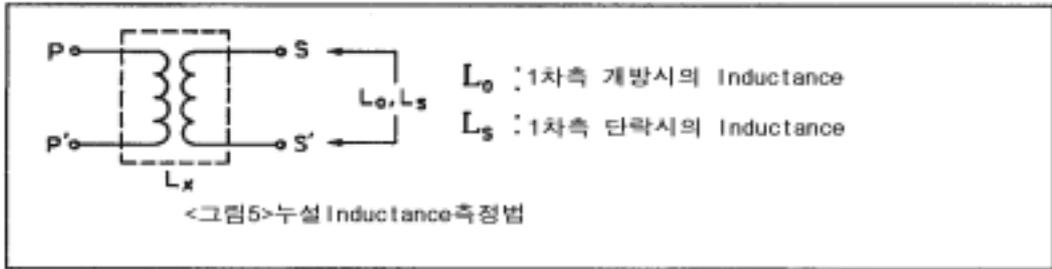
Monitor TV

2: Inverter

2-1:

Trans 2 가
 Inverter 2

2 Trans 2 Inductance L_s ,
 Capacitor 2
 (1) Inductance $L_s < 5 >$
 Trans 1 () 2 Inductance



14 Back-Light Trans L_s 180mH~280mH 가 .>
 (2)2 < 6 >

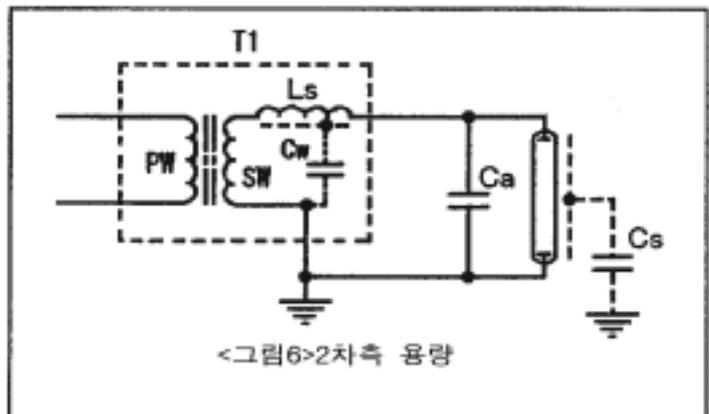
Back-Light : C_s
 5pF pF

2 : C_w

Trans 2
 2~3pF
 : C_a

pF~ pF

가



$$f = 2\pi \sqrt{\frac{1}{L_s \cdot (C_w + C_a + C_s)}} \text{ Hz}$$

2-2: Impedance Matching

Back-Light

Impedance Z_r

14 Back-Light 80kΩ~120kΩ

Inverter

Impedance $Z_{r,2}$

Reactance

$X_{(C_w+C_a+C_s)}$, Trans

Inductance L_s 가 Inverter

가

$$|X_{L_s}| \leq |Z_r|$$

$$|X_{(C_w+C_a+C_s)}| \geq |X_{L_s}|$$

Impedance

Simulator

2-3: ()

2

가

Back-Light

가

가

Inverter

가

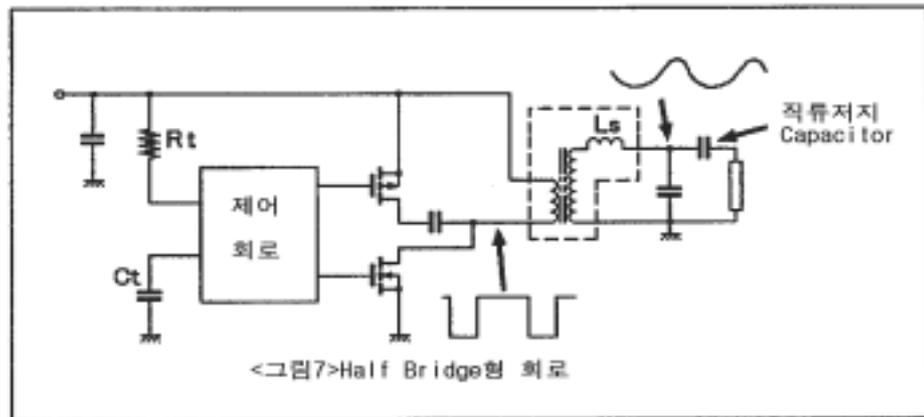
가

Back-Light가 Pink

(損耗)

Half Bridge

가



Half Bridge

Trans 1

Duty < 7>

Trans 1

< 7>

가 Trans 2

가

(整流作用)

가

Pink
 Back - Light
 Pink
 Inductance Ls
 Half Bridge Driver
 Half Bridge Driver
 3.
 Zero
 Back - Light
 가
 Inverter
 Model
 Maker
 Back - Light
 Inverter
 2
 Q
 (Curve)
 가
 Inverter Set
 ,Back - Light
 -- --
 2003 10 20