

APPROVE SHEET

PARTS: DC-AC INVERTER

PARTS NO: QF63V2.03A(S)

SIGNATURE

DESIGNED BY	PREPARED BY	PROVIDED BY
		

1. General

The DC To AC inverter is designed as a low noise high frequency as a low profile and light weight switching power supply.

2. Feature

Applicable TO Dual Tube

Constant current output

Possesses open load protection

No load –output auto stop

Meet TCO 99

3. LCD Application

LCD SIZE	Lcm Model	Brand	Remark
10.4”	PD104SL5	PRIME VIEW	
		AUO	
		NEC	

4. Operating Conditions

Item	Symbol	Conditions	MIN	MAX	Unit	Remark
Input Voltage	Vin		9.0	-	V	
Operating Temperature	Top	Ha=90%RH	0	65	°C	
Storage Temperature	Tstg	Ha=95%RH	-10	80	°C	
Operating Humidity	Hop	Ta=0~55 °C	20	90	%RH	
Storage Humidity	Hstg	Ta=20~80 °C	-	95	%RH	

5. Operating Characteristics

Item	Symbol	Conditions	MIN.	TYP.	MAX.	Unit	Remark
Input Voltage	Vin	GND=0V	10.8	12	13.2	V	
Input Current (Low Brightness)	IinL	Vin=TYP. ±1% ON VR=MIN (Iout=MIN)	260	330	400	mA	
Input Current (High Brightness)	IinH	Vin=TYP. ±1% ON VR=MAX (Iout=MAX)	600	680	780	mA	
Lamp Current (Low Brightness)	IoutL	Vin=TYP. ±1% ON VR=MIN (Iout=MIN)	2.4	3.0	3.5	mA rms	單燈管
Lamp Current (High Brightness)	IoutH	Vin=TYP. ±1% ON VR=MAX (Iout=MAX)	5.8	6.2	6.6	mA rms	單燈管
Working Frequency			40	45	50	KHZ	
Dimming		Tube Current	>2:1	-	-		
Brightness Control		Connection of Voltage	5	-	0	V	
Output Voltage		CCFT Current =5 mA	-	630	-	V	

6. Connector Socket

6-1. (P1) Input Connector FOR NEC LCD

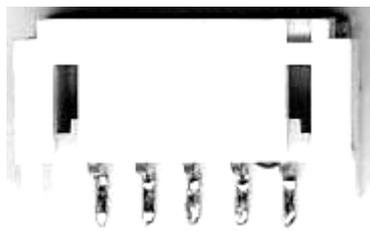
PIN No	Symbol	Description
1	Vin	DC+12V
2	GND	Ground
3	Control	ON/OFF control ON=+5V OFF=0V
4	Brightness	Digital Brightness Control
5	GND	Ground

6-2. (P2) Output Connector

PIN No	Symbol	Description
1	Output	Lamp Low Voltage
2	Output	Lamp High Voltage
3	Output	Lamp High Voltage

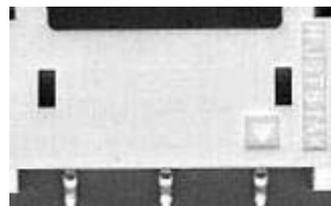
6-3. Connector Model No & Brand

Connector No.	Connector Parts No	Brand
P1	S5B-PH-SM3	JST
P2	SM03(4.0)	JST



S5B-PH-SM3

(pin1)



SM03(4.0)

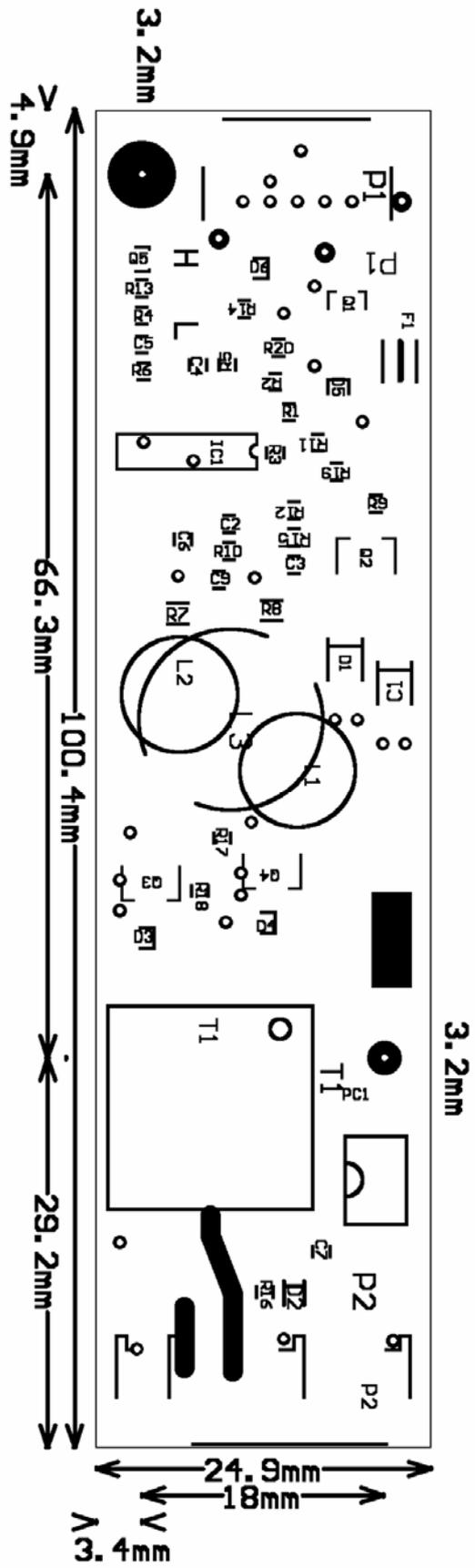
(pin1)

7. Mechanical Characteristics

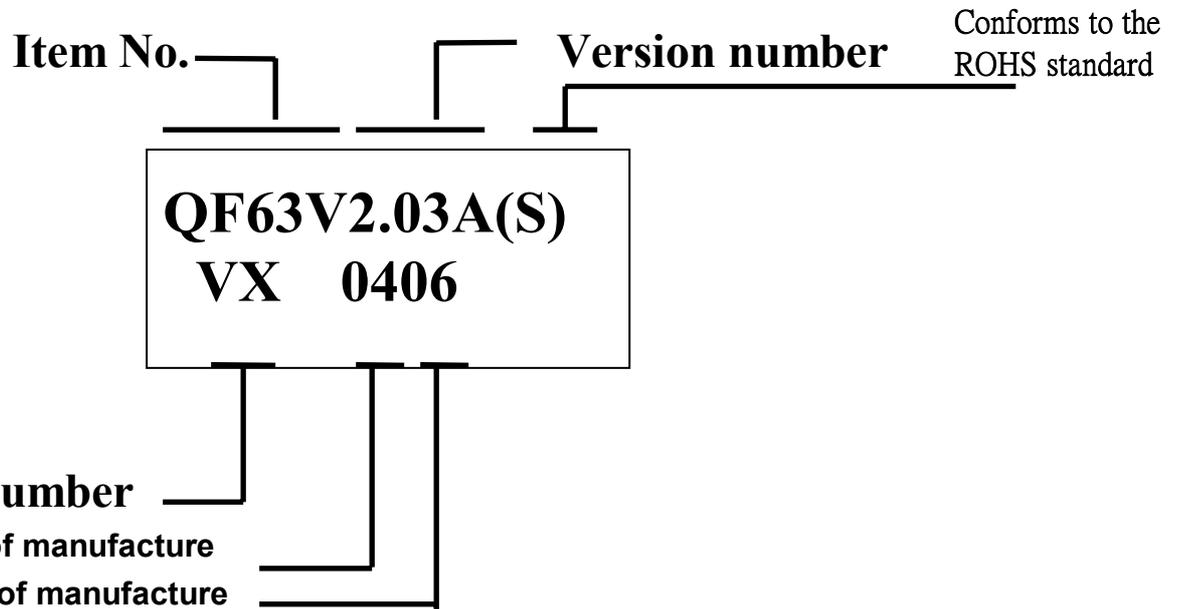
Dimension: 100.5mm * 25mm * 10mm

Weight: MAX. 15g

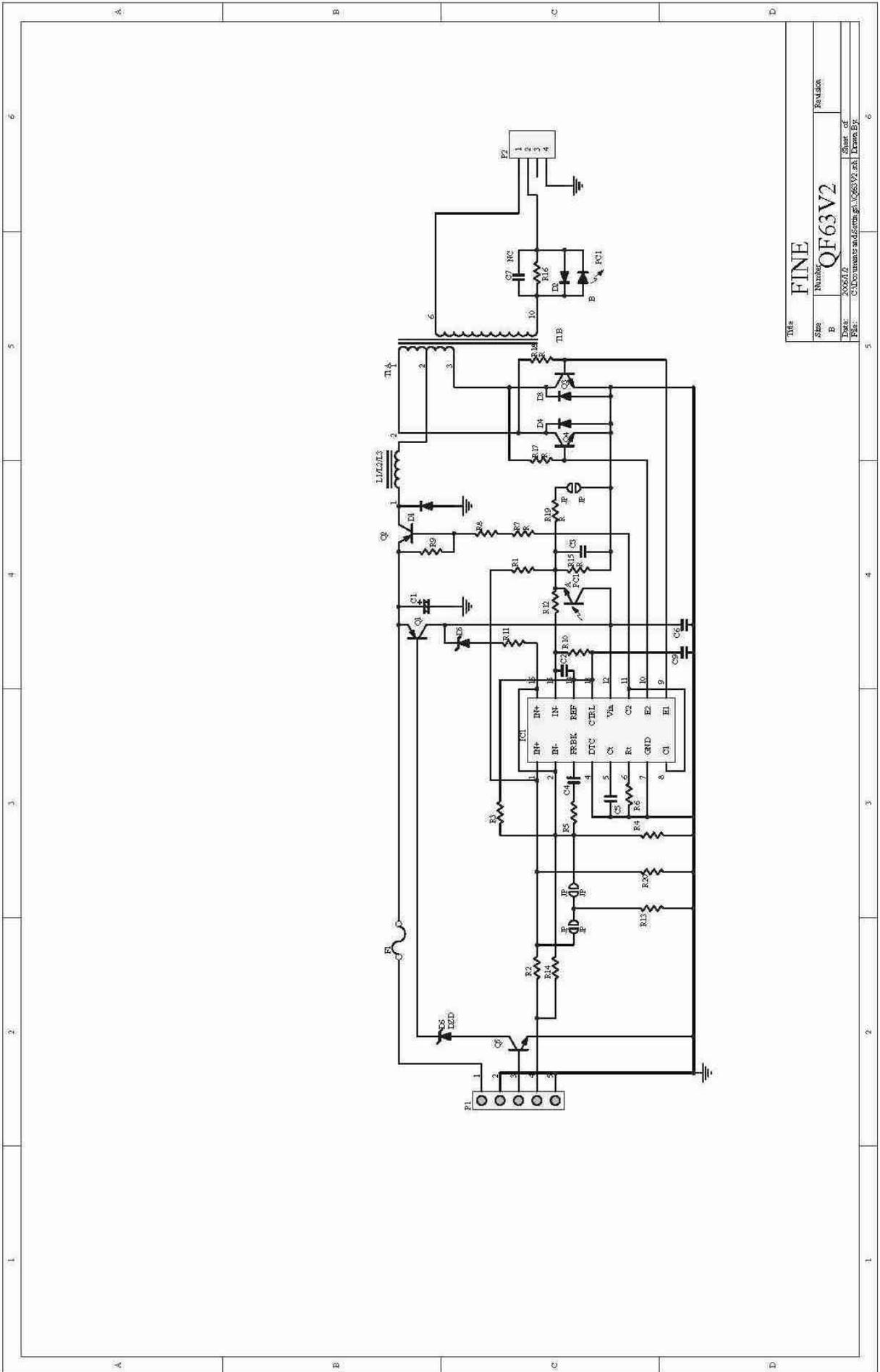
PCB DIMENSION



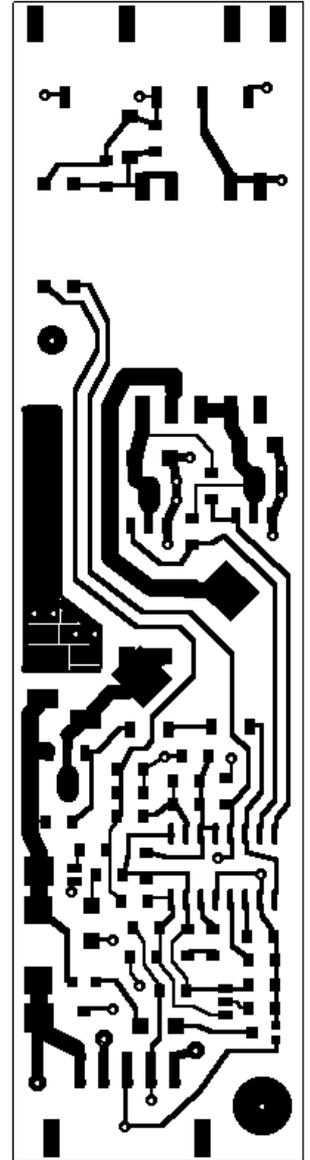
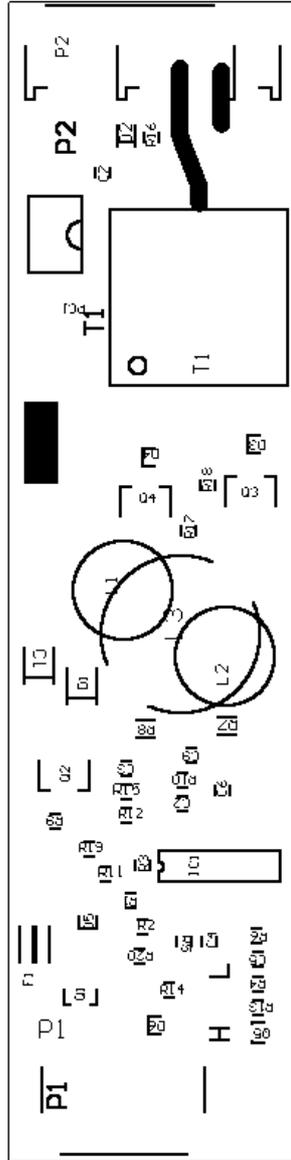
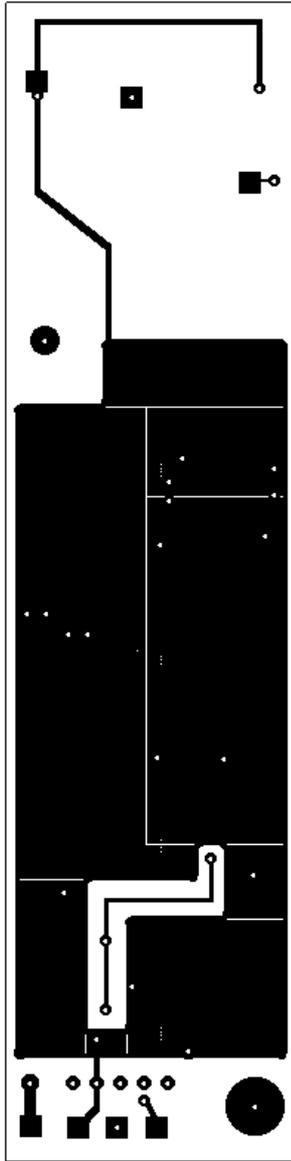
Sticker



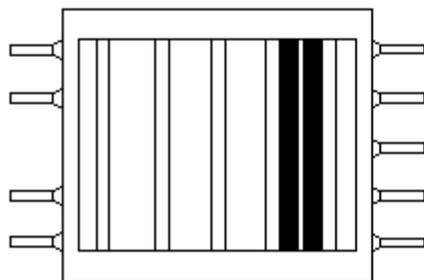
04 for 2004, 05 for 2005etc.



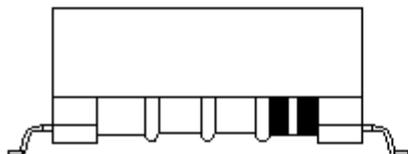
PCB LAYOUT



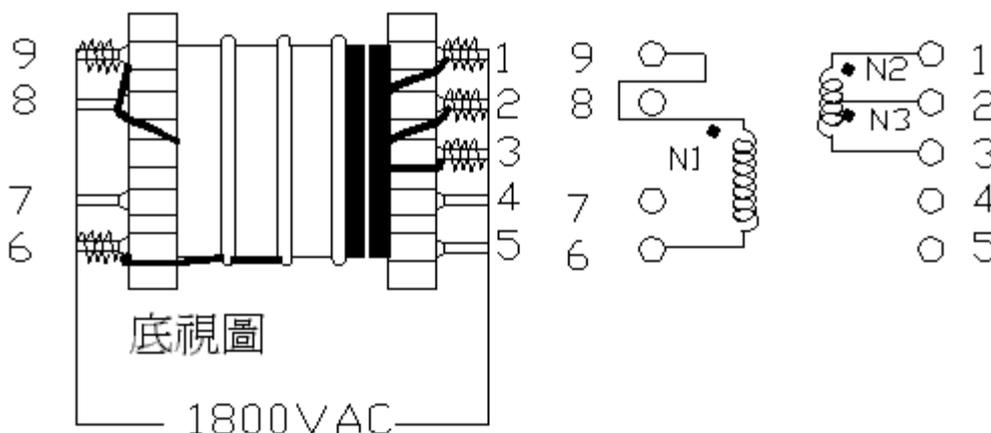
EFD15-TF503



上視圖



側視圖



Core	NC 2H								
Bobbin									
Tape	NC								
Wire	N1: 1SFBW , SFBY , Pp155 ; N2,3: 2UEW								
Impregnation	RPM								
Gap	0								
Color	Pink 粉紅色								
耐壓	Primary to Secondary 1800Vac 5mA 60sec								
備註:									
Insulation Tape Layers	Winding	Terminal Start ~ End	Wire Gauge(mm)	Turns	Color	H		DCR(Ω)	
						MAX	MIN	MAX	MIN
	N1	9 ~ 6	0.045 1SFBW	1700					
	N2	1 ~ 2		16					
	N3	2 ~ 3		16					
備註:									

QF Number:	Whether Uses	QF63V2;117V1,2 ;132V1~4 ;61V4 ;133V1;123V1,2;99V1			
ITEM		MATERIAL	CLASS	UL FILE NO	MANUF ACTURER
1.FERRITE CORE	✓	2F8;2G8			TOMITA
	✓	NC-2H			NICERA
2.BOBBIN	✓	LCP (94V-0) E4008L	130°C	E54705(M)	SUMITOMO CHEMICAL CO LTD
3.TAPE		3M NO.1350F-1(b)	130°C	E17385(N)	MINNESOTA MINING & MFG CO ELECTRICAL SPECIALTIES DIV
4.MYLAR FILM	✓	LUMIRROR Z2 (94VTM-2)	105°C	E86511(M)	TORAY INDUSTRIES INC FILM DIV
		FORMEX-18	105°C	E121855	ITWFORMEX CO.LTD
		ER	105°C	E110983	GARWARE POLYESTER.LTD
5.WIRE	✓	POLYURETHANE ENAMELLED COPPER UEW-2	130°C	E79029(S)	TOTOKU ELECTRIC CO.LTD
	✓	UEW-1(SFBW,SFBY)	155°C	E79029(S)	TOTOKU ELECTRIC CO.LTD
	✓	Pp155	155°C	E143312	ELEKTRISOLA CO.LTD
	✓	DD	130°C	E84081	PACIFIC ELECTRIC WIRE & CABLE CO.LTD
6.VARNISH	✓	BC-359	130°C	E51047(M)	JOHN C DOLPH CO
	✓	BC-346A	200°C	E51047(M)	JOHN C DOLPH CO
7.COVER	✓	LCP(94V-0) E4008L	130°C	E54705(M)	SUMITOMO CHEMICAL CO LTD
8.EPOXY		R-10(94V-0)	160°C	E70012(M)	ZU YU CHEMICAL CORP.
		F500A ; F500B	94V-0	E180899	HUNG SHIUNG ENTERPRISES CO.LTD
9. SILCONE RUBBER	✓	SE9189 GRAY RTV	150°C	E55519	DOW CORNING CO.LTD
	✓	1080 RTV	130°C	E40195	
RUBBER		777HFR	94V-0	E129576	O-KONG INDUSTRIES CO LTD

QF Number:	Whether Uses	QF63V2;117V1,2 ;132V1~4 ;61V4 ;133V1;123V1,2;99V1			
ITEM		MATERIAL	CLASS	UL FILE NO	MANUF ACTURER
10.PCB	√	03V0	130°C	E171781	ART P.C.B CORP
11.FUSE		251;429		E10480	LITTELFUSE INC
	√	C1Q		E20624	BEL FUSE INC
	√	3216FF		E19180	COOPER INDUSTRIES INC BUSSMANN DIV
		ICP-S		E107865	ROHM CO ., LTD.
12.PHOTO COUPLE R	√	LTV817A(QF63 only)		E113898	LITE-ON TECHNOLOGY