IMST

TENTATIVE

Thick Film Hybrid IC

STK795 – 010

Sustain Driver Circuit for Color PDP(Plasma Display Panel)

■ Overview

The STK795-010 is a hybrid IC that contains in single packge basic unit of sustain driver needed for AC type color PDP(Plasma Display Panel). This hybrid IC incorporates main switching circuit(breakdown voltage: 400V, output current:20A)and the additional circuit for saving enagy. Consequently, this hybrid IC can reduce the number of parts, miniaturize the application PCB for sustain driver of color PDP system.

■ Applications

◆AC Type Color PDP(Plasma Display Panel).

■ Features

◆Single packge IC of sustain driver basic unit for PDP(main switching circuit and power recovery circuit, 19 pins package)
◆Capable of producing sustain driver circuit of PDP by some hybrid ICs. (Example:20 inch PDP/4 units, 40 inch PDP/8 to 12 units)
◆High breakdown voltage:400V, High output current:20A, High speed switching characteristics
◆Built-in temperature detection circuit
◆Compact package, Excellent heat dissipation and Excellent shield property by IMST(Insulated Metal Substrate Technology)
◆Easy assembly by SIP structure

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■ Electrical Characteristics

Absolut Maximum Ratings (Ta=25℃)

Item	Symbol	Conditions	Ratings	Units
Power Supply Voltage	Vcc1	22, 23pin	400	V
	Vcc2	7pin	25	V
	Vcc3	6pin	20	V
Maximum Output Current	Io1	19, 20pin(DC 1s)	±20	A
	Io2	16, 17pin(DC 1s)	±10	A
Junction Temperature	Tj		150	℃
Operating Substrate Temperature	Tc		105	℃
Storage Temperature	Tstg		-30 to +125	℃

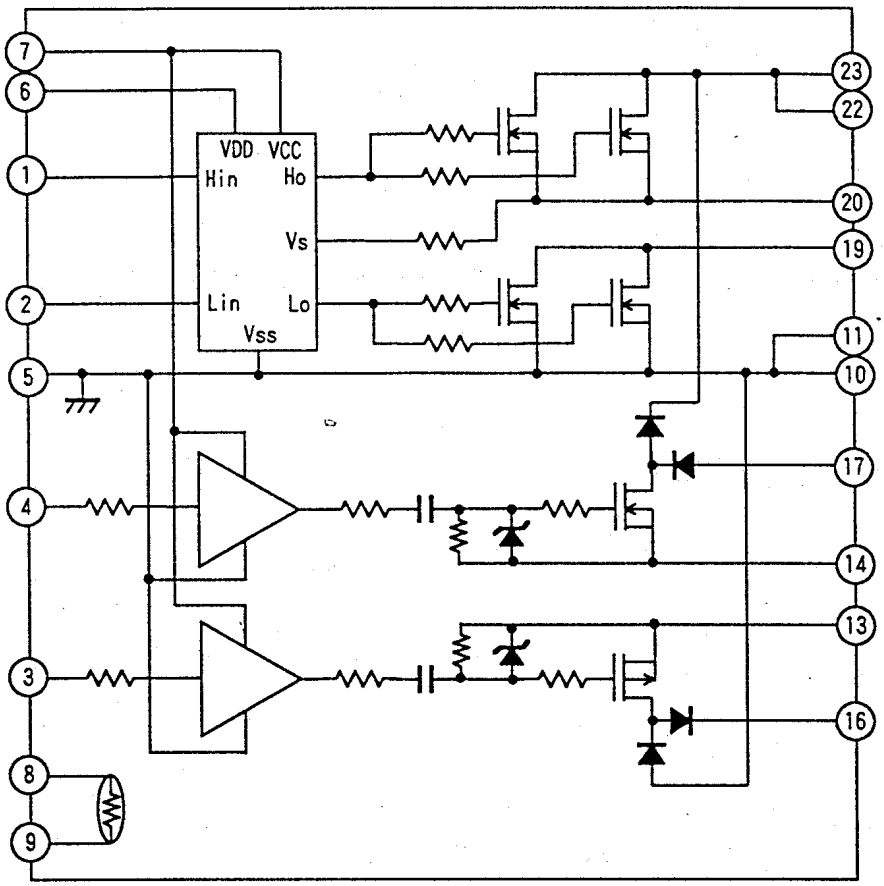
Recommended Operating Conditions

Item	Symbol	Conditions		Ratings	Units
Power Supply Voltage	Vcc1	22, 23pin	Sustaining state	200	V
			Priming state	350	V
	Vcc2	7pin		15	V
	Vcc3	6pin		5	V

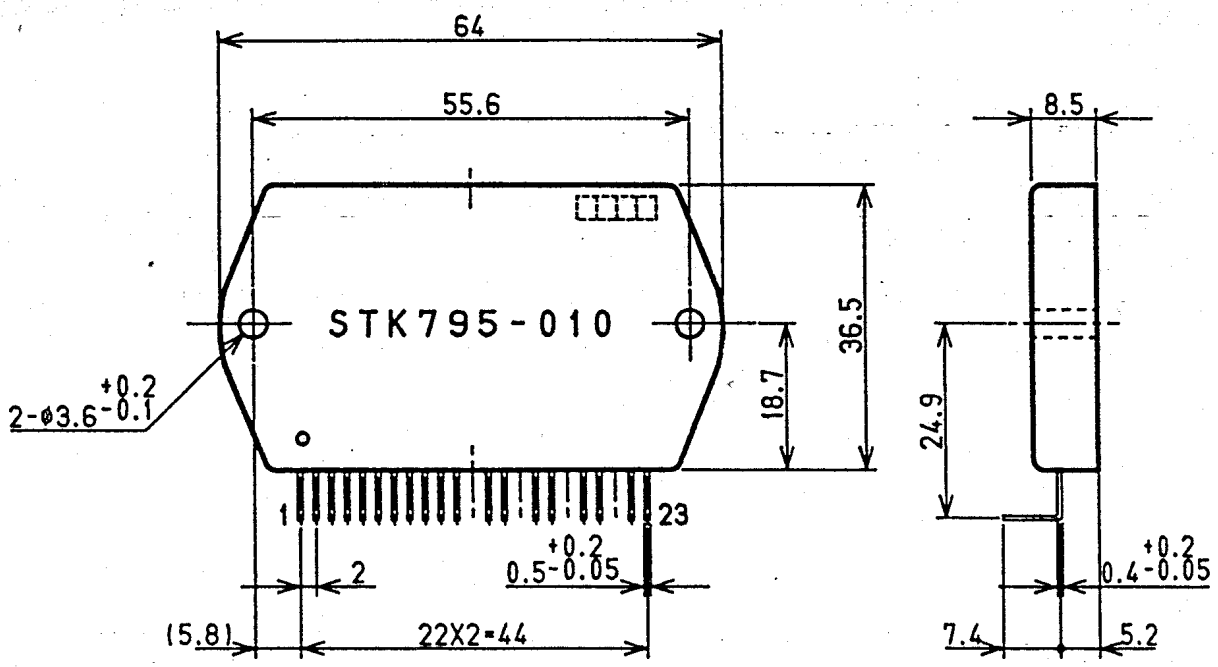
Operating Charecteristics (Ta=25℃, Rg=50Ω)

Item	Symbol	Conditions	Ratings			Units
			min.	typ.	max.	
Quiescent current	Icco1	22/23pin(Vcc1)		35		mA
	Icco2	7pin(Vcc2)		55		mA
Output Suturation Voltage	Vsat1	22/23pins to 20pin, I_D=10A		3		V
	Vsat2	19/10pins to 11pin, I_D=10A		3		V
Delay Time	t_D(on)1	22/23pins to 20pin, I_D=10A, T=8μs duty=10%		190		ns
	t_D(on)2	19/10, pins to 11pin, I_D=10A, T=8μs duty=10%		190		ns
	t_D(on)3	17/14pins I_D=5A, T=8μs duty=10%		40		ns
	t_D(on)4	13/16pins I_D=5A, T=8μs duty=10%		20		ns
Detection Temperature	R_{8-9}	Resistance of 8 pin to 9 pin, Tc=25℃		470		Ω
Resistance of Temperature Detection Terminal	Ts	Resistance of 8 pin to 9 pin, 4.7kΩ point		135		℃

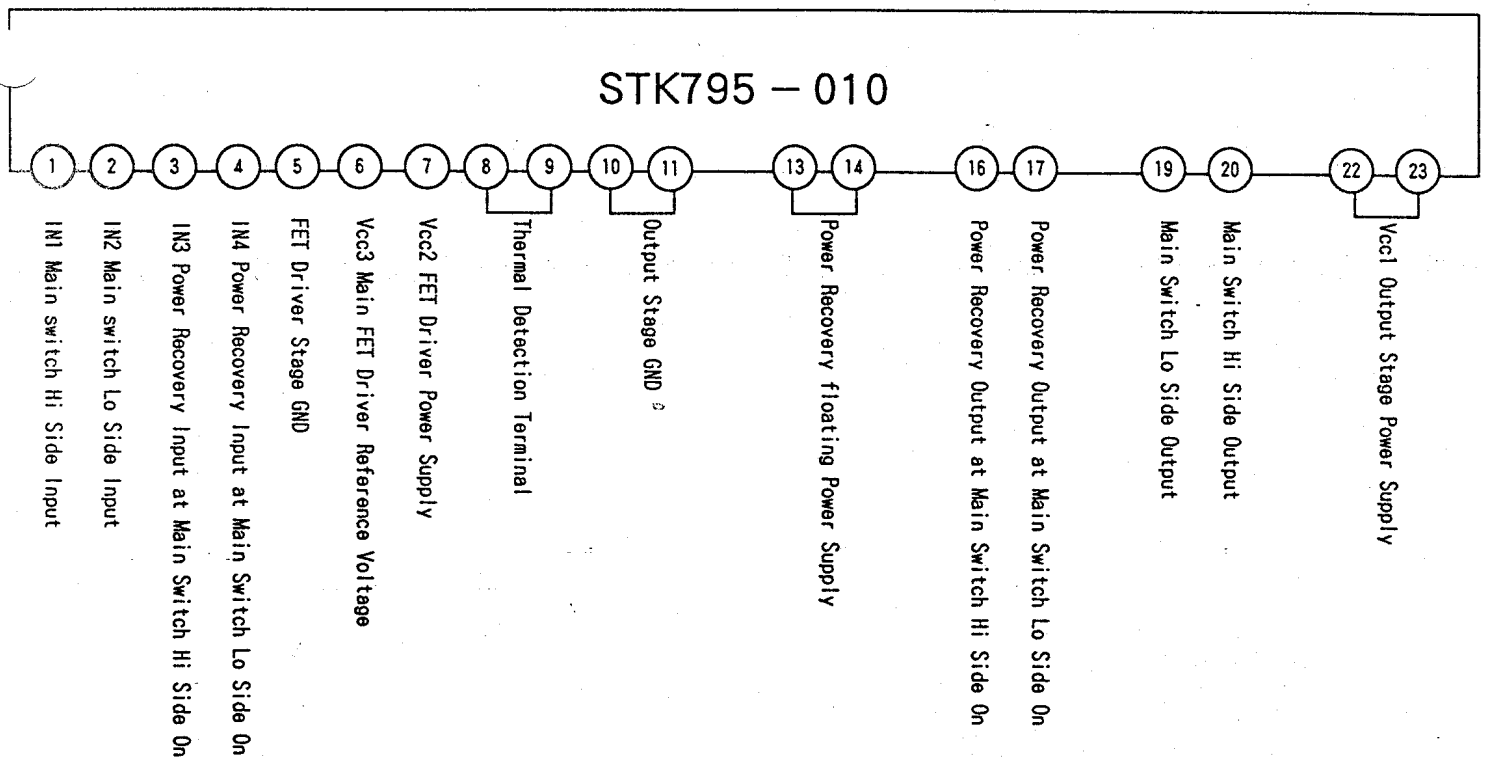
■ Block Diagram



■ Case Outline



■ Pin Layout and Functions·····



■ Sample Application Circuit·····