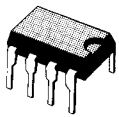
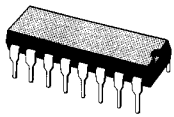
EAST/WEST CORRECTION FOR DIGITAL TV-SETS

ADVANCE DATA

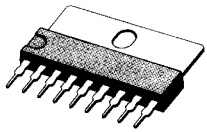
- LOW POWER DISSIPATION
- PULSE WIDTH MODULATOR FOR SWITCH MODE OPERATION
- OUTPUT SINK CURRENT UP TO 800mA
- OUTPUT SOURCE CURRENT UP TO 100mA
- HIGH IMPEDANCE INPUT AMPLIFIER



Minidip



Powerdip 8 + 8



SIP.9

ORDER CODES : Powerdip TDA8147
Minidip TDA8147M
Sip.9 TDA8147S

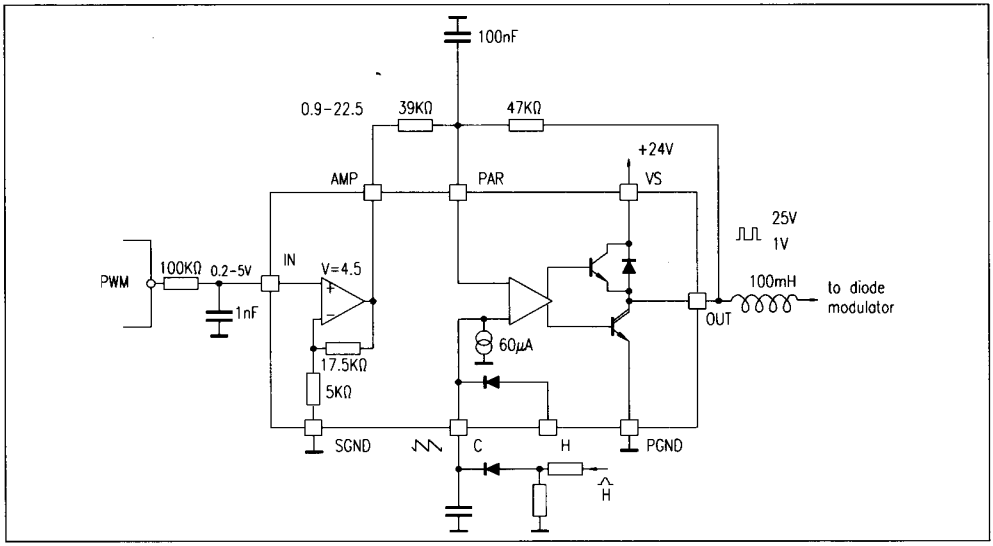
DESCRIPTION

The TDA8147 is a monolithic integrated circuit available in three different packages : minidip, powerdip, SIP.

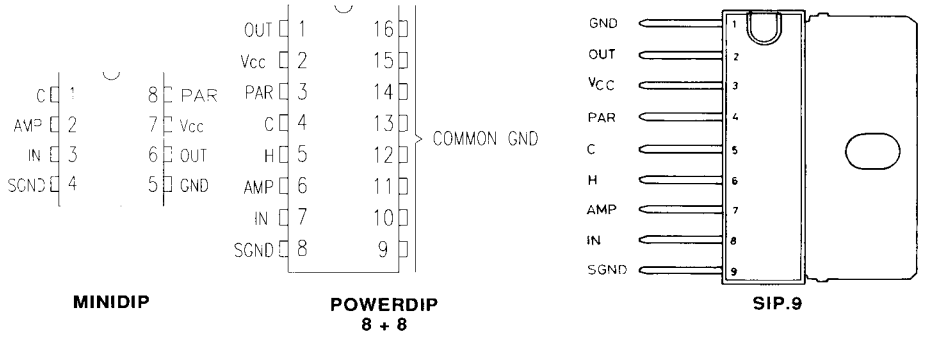
The TDA8147 is designed for use in the east-west pin-cushion correction by driving a diode modulator in TV application.

Since this device has not the parabole generator end is drived by a PWM, it is very useful in digital TV-sets.

BLOCK DIAGRAM



PIN CONNECTIONS (top view)



ELECTRICAL CHARACTERISTICS

V_S = 24V, T_j = 25°C (unless otherwise specified)

Symbol	Parameter	Test Conditions	Min.	Typ.	Max.	Unit
V_S	Supply Voltage		15	24	26	V
I_S	Supply Current	V_{out} = LOW		4	7	mA
V_{SATL}	Saturation Voltage	I_O = 800mA Sink		1.2	2	V
V_{DSAT}	Diode Forward Voltage	I_O = – 800mA		1.1	1.75	V
V_{SATH}	Saturation Voltage	I_O = 100mA Source		0.8	1.25	V
I_C	Current Sink Pin C		40	60	90	µA
I_{IN}	Input Current			0.1		µA
G	Opamp Gain		4.3	4.5	4.7	
V_O	Output Voltage Swing	I_{out} = ± 1mA	0.9		V_S – 1.5	V

ABSOLUTE MAXIMUM RATINGS

Symbol	Parameter	Value	Unit
I_{outL}	Output Sink Current	800	mA
I_{outH}	Output Source Current	100	mA
V_S	Supply Voltage	28	V
V_{IN}	Input Voltages	0.3 to V_S	V
P_{tot}	Power Dissipation at T_{amb} = 70°C	0.8 minidip 1.1 powerdip 1.1 SIP9	W W W
T_{stg}, T_j	Storage and Junction Temperature	– 25 to + 150	°C

THERMAL DATA

$R_{th(j\text{-}amb)}$	Minidip	100	°C/W
	Powerdip	70	°C/W
	SIP9	70	°C/W