

TRANSISTORS AND DARLINGTONS FOR MONOCHROME DEFLECTION

V _{CB0}	V _{CEO}	I _c	P _{tot}	Package	Type NPN	h _{FE} @ I _c / V _{CE}			V _{CE(sat)} I _c / I _B		
						min	(A)	(V)	max	(A)	(A)
(V)	(V)	(A)	(W)						(V)	(A)	(A)
900	400	6	114	SOT-93	BU426A	5	2.5	1.5	1.5	2.5	0.5
330	150	7	60	TO-220	BU407	10	5	1	1	5	0.5
330	150	7	30	ISOWATT220	BU407FI	10	5	1	1	5	0.5
330	150	7	60	TO-220	BU407D*	8	5	1	1	5	0.65
400	200	7	60	TO-220	BU406	10	5	1	1	5	0.5
400	200	7	60	TO-220	BU406D*	8	5	1	1	5	0.5
600	400	7	75	TO-220	BU810**	100	2	2	2.5	4	0.2
330	150	8	60	TO-220	BU807**	100	5	2	1.5	5	0.05
400	200	8	60	TO-220	BU806**	100	5	2	1.5	5	0.05
400	200	8	30	ISOWATT220	BU806FI	100	5	2	1.5	5	0.05

*Transistors with integral damper diode.

**Fast switching monolithic Darlington with speed up and damper diodes.

RGB VIDEO OUTPUT TRANSISTORS

Device	V _{CEO}	V _{CB0} V _{CEs}	I _c	P _{tot}	Package NPN	V _{CE(sat)} @ I _c / I _B			t _s	t _f
						(V)	(A)	(A)		
VT120	200	200	0.10	8.4	SOT-32	-	-	-	-	-
VT312	12	20	0.5	3	SOT-32	-	-	-	-	-
BF457	160	160	0.30	12.5	SOT-32	1.0	50.0	10.0	-	-
BF458	250	250	0.30	12.5	SOT-32	1.0	50.0	10.0	-	-
BF459	300	300	0.30	12.5	SOT-32	1.0	50.0	10.0	-	-

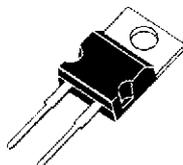
DYNAMIC FOCUS

Device	V _{CEO}	V _{CB0} V _{CEs}	I _c	P _{tot}	Package	V _{CE(sat)} @ I _c / I _B			t _s	t _f
						(V)	(A)	(A)		
BUH2M20AP	1200	2000	0.03	40	TO-220	5.0	2.0	400.0	-	-
BUH2M20P	900	2000	0.03	40	TO-220	5.0	2.0	400.0	-	-

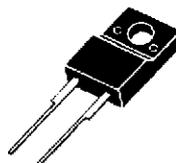
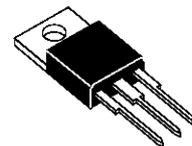
HORIZONTAL DEFLECTION - DIODES FOR COLOR TV AND MONITORS



DO-201AD



TO220AC

ISOWATT220AC
(Fully Isolated)

TO220I

DAMPER DIODES

 $T_j(\text{max}) = 150^\circ\text{C}$

Device	I_o (A)	V_{RRM} (V)	(1) V_F @ rated V_{RRM} (V)	I_R @ rated V_{RRM} (mA)	(2) t_{RR} (ns)	Package
DTV32-1500A	6	1500	1.2	1	600	TO220AC
DTV32-1500B	6	1500	1.4	1.4	175	
DTV64D	6	1500	1.4	1	135	
DTV82D	6	1500	1.3	1	125	
DTV110D	6	1500	1.5	1	115	
DTV32F-1500A	6	1500	1.2	1	600	ISOWATT220AC
DTV32F-1500B	6	1500	1.4	1.4	175	
DTV64F	6	1500	1.4	1	135	
DTV82F	6	1500	1.3	1	125	
DTV110F	6	1500	1.5	1	115	

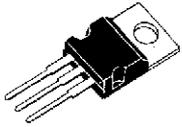
MODULATION DIODES

T_j (max) = 150°C						
Device	I_o (A)	V_RRM (V)	(1) V_F @ rated V_RRM (V)	I_R @ rated V_RRM (mA)	(2) t_{RR} (ns)	Package
MDV03-400	3	400	1.4	0.50	55	DO-201AD
MDV04-600	4	600	1.2	0.75	75	

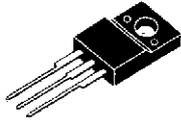
DAMPER + MODULATION DIODES FOR VIDEO

T_j (max) = 150°C						
Device	I_o (A)	V_RRM (V)	(1) V_F @ rated V_RRM (V)	I_R @ rated V_RRM (mA)	(2) t_{RR} (ns)	Package
DMV32A						TO220AB
• Damper diode • Modulation diode	1500 600	6 5	1.2 1.2	1 0.75	175 80	
DMV32B						TO220AB
• Damper diode • Modulation diode	1500 600	6 5	1.3 1.2	1.4 0.75	175 80	

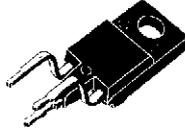
DEFLECTION - TRANSISTORS



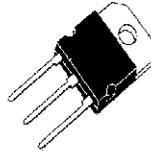
TO-220



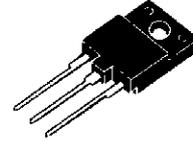
ISOWATT220
(Fully Isolated)



ISOWATT221



SOT-93

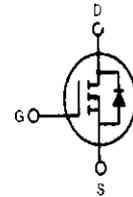
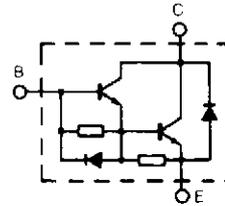
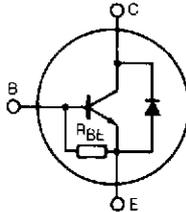
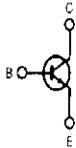


ISOWATT218
(Fully Isolated)



TO-3

Internal schematic diagrams



HORIZONTAL DEFLECTION & SMPS FOR CTV & MONITORS
POWER BIPOLAR TRANSISTORS & DARLINGTONS

Device	V _{CEO} (V)	V _{CBO} V _{CES} (V)	I _c (A)	P _{tot} (W)	Package NPN	V _{CE(sat)} @ I _c / I _B			t _s (μs)	t _r (μs)
						(V)	(A)	(A)		
BUH517	700	1700	8.0	55	ISOWATT218	1.5	5.0	1.25	2.7	0.19
BUH417	700	1700	7.0	50	ISOWATT218	1.5	4.0	1.00	2.1	0.14
BUH1215	700	1500	19.0	200	TO-218	1.5	12.0	2.40	1.5	0.11
BUH1015	700	1500	16.0	160	TO-218	1.5	10.0	2.00	2.2	0.11
THD412HI*	700	1500	14.0	57	ISOWATT218	3	5	1	2.7	0.2
THD409HI*	700	1500	12.0	54	ISOWATT218	3	4	0.8	3	0.2
BUH715	700	1500	10.0	65	ISOWATT218	1.5	7.0	1.50	2.1	0.14
BU208A	700	1500	8.0	150	TO-3	1.0	4.5	2.00	7.0	0.55
BU208D	700	1500	8.0	150	TO-3	1.0	4.5	2.00	7.0	0.55
BU508A	700	1500	8.0	125	TO-218	1.0	4.5	2.00	7.0	0.55
BU508AFI	700	1500	8.0	50	ISOWATT218	1.0	4.5	2.00	7.0	0.55
BU508AXI	700	1500	8.0	40	ISOWATT221	1.0	4.5	2.00	7.0	0.55
BU508D	700	1500	8.0	125	TO-218	1.0	4.5	2.00	7.0	0.55
BU508DFI	700	1500	8.0	50	ISOWATT218	1.0	4.5	2.00	7.0	0.55
BUH515	700	1500	8.0	50	ISOWATT218	1.5	5.0	1.25	2.7	0.19
BUH515D	700	1500	8.0	50	ISOWATT218	1.5	5.0	1.25	2.4	0.17
BUH515DXI	700	1500	8.0	40	ISOWATT221	1.5	5.0	1.25	2.4	0.17
S2000AFI	700	1500	8.0	50	ISOWATT218	1.0	4.5	2.00	2.7	0.20
BUH315	700	1500	5.0	44	ISOWATT218	1.5	3.0	0.75	1.6	0.11
BUH315D	700	1500	5.0	44	ISOWATT218	2.0	3.0	1.00	1.8	0.20
BUH415DXI	700	1500	5.0	35	ISOWATT221	2.0	4.0	1.33	1.8	0.20
BU505	700	1500	2.5	75	TO-220	5.0	2.0	0.90	2.0	0.35
BU808DFI #	700	1400	7.5	50	ISOWATT218	1.6	5.0	0.50	2.0	0.80
BU808DXI #	700	1400	7.5	35	ISOWATT221	1.6	5.0	0.50	2.0	0.80
BUH513	700	1300	8.0	50	ISOWATT218	1.5	5	1.25	2.7	0.19
BUH615	700	1500	8.0	55	ISOWATT218	1.6	6	1.5	2.7	0.19
SGSF465	600	1300	10.0	125	TO-218	1.5	5.0	1.00	3.5	0.40
SGSF445	600	1300	7.0	95	TO-218	1.5	3.0	0.60	3.5	0.30
BUH313	600	1300	5.0	44	ISOWATT218	1.5	3.0	0.75	1.6	0.11
SGSF464	600	1200	10.0	125	TO-218	1.5	6.0	1.20	3.5	0.40
SGSIF464	600	1200	10.0	56	ISOWATT218	1.5	6.0	1.20	3.5	0.40
SGSIF444	600	1200	7.0	50	ISOWATT218	1.5	3.5	0.70	3.5	0.30
SGSF444	600	1200	7.0	95	TO-218	1.5	3.5	0.70	3.5	0.30

* = In introduction # = Darlington

HORIZONTAL DEFLECTION & SMPS FOR CTV & MONITORS
POWER BIPOLAR TRANSISTORS & DARLINGTONS (cont'd)

Device	V _{CEO} (V)	V _{CBO} V _{CES} (V)	I _c (A)	P _{tot} (W)	Package NPN	V _{CE(sat)} @ I _c / I _B			t _s (μs)	t _f (μs)
						(V)	(A)	(A)		
SGSIF344	600	1200	7.0	35	ISOWATT220	1.5	3.5	0.70	3.5	0.30
SGSF344	600	1200	7.0	85	TO-220	1.5	3.5	0.70	3.5	0.30
SGSF324	600	1200	4.0	70	TO-220	1.5	1.8	0.35	4.5	0.35
BUF420A	450	1000	30.0	200	TO-218	0.5	20.0	4.00	2.0	0.10
BUF410A	450	1000	15.0	125	TO-218	0.5	10.0	2.00	1.8	0.10
SGSF463	450	1000	12.0	125	TO-218	1.5	7.0	1.40	2.3	0.50
BUF405A	450	1000	7.5	80	TO-220	2.0	5.0	1.00	1.8	0.10
BUF405AXI	450	1000	7.5	35	ISOWATT221	2.0	5.0	1.00	1.8	0.10
SGSF313XI	450	1000	5.0	25	ISOWATT221	0.8	2.5	0.50	2.5	0.30
BUF420	450	850	30.0	200	TO-218	0.5	20.0	4.00	2.0	0.10
BUF410	450	850	15.0	125	TO-218	0.5	10.0	2.00	1.8	0.10
BUF410FI	450	850	15.0	60	ISOWATT218	0.5	10.0	2.00	1.8	0.10
BUF405	450	850	7.5	80	TO-220	2.0	5.0	1.00	1.8	0.10
SGSIF461	400	850	15.0	57	ISOWATT218	1.5	10.0	2.00	2.3	0.50
SGSF461	400	850	15.0	125	TO-218	1.5	10.0	2.00	2.3	0.50
SGSF341	400	850	10.0	85	TO-220	1.5	6.0	1.20	2.5	0.35
SGSF441	400	850	10.0	95	TO-218	1.5	6.0	1.20	2.5	0.35
BUL310	500	1000	5	75	TO-220	1.1	3	0.6	3	0.4
BUL310PI	500	1000	5	35	ISOWATT220	1.1	3	0.6	3	0.4

* = In introduction

= Darlington

DEFLECTION - ICs

VERTICAL DEFLECTION

Type	Description	Package
TDA1175	Low Noise Complete Definition VDU	FINDIP
TDA1175P	Low Noise Complete Definition VDU	POWERDIP16
TDA1675A	Complete System for VDU and Color TV	MULTIWATT
TDA1771	Complete System for Small Screen VDU and Color TV with ramp generator	SIL10
TDA8170	Power Output for Color TV	HEPTAWATT
TDA8171	Power Output for Color TV	HEPTAWATT
TDA8172	Power Output for Color TV	HEPTAWATT
TDA8174	Power Output for VDU, B&W and Color TV with ramp generator	MULTIWATT
TDA8175	Power Output for VDU, B&W and Color TV	HEPTAWATT
TDA8177	Power Output for Color TV	HEPTAWATT
STV9379	Deflection Booster for High Performance Monitors and TV	HEPTAWATT

HORIZONTAL DRIVERS

Type	Description	Package
TDA8140	Power Transistor Driver for Monitors and Color TV	POWERDIP
TDA8143	Power Transistor Driver for Large Screen CTV	SIP9

HORIZONTAL AND VERTICAL DEFLECTION PROCESSORS

Type	Description	Package
TDA9103	H/V Deflection Processor for Multifrequencies Monitors	SDIP42
TDA8214B	H/V Processor for Low Cost TV	DIP20
TDA8215B	H/V Processor with Darlington Drive for Low Cost TV	DIP20
TDA9102/F/G/T	H/V Deflection Processor for Multifrequencies Monitors	DIP20
TDA9105	H/V Deflection Processor for Multifrequencies Monitors	SDIP42
TEA2037A	H/V Deflection Circuit for Low Cost Monitors and B&W TV	BATWING DIP16
TEA2130	H/V Deflection With Automatic VCR Switching	DIP20
STV7778	H/V Deflection Processor for Multifrequencies Monitors	SDIP42

DEFLECTION - ICs (cont'd)
EAST/ WEST CORRECTION

Type	Description	Package
TDA4950	E/W Parabolic and Keystone Correction	MINIDIP
TDA8145	E/W Parabolic for Square CRT	MINIDIP
TDA8146	E/W Parabolic for Rectangular TV Tubes Correction	DIP14
TEA2031A	E/W Parabolic and Keystone Correction	MINIDIP
STV2145	I ² C Bus Controlled East/West and Vertical Interface	DIP16

WIDE BAND VIDEO AMPLIFIER

Type	Description	Package
TDA9205	Triple Channel 100 MHz Video Preamplifier (DC Ctrl)	SDIP42
TDA9206	Triple Channel 100 MHz Video Amplifier (I ² C Ctrl)	SDIP42

HIGH VOLTAGE VIDEO AMPLIFIER

Type	Description	Package
STV5112	3-Channel RGB High Video Amplifier	MULTIWATT
TDA9501	Mono Channel 40MHz Video Amplifier (monitor)	PENTAWATT
TEA5101B	3-Channel RGB High Video Amplifier	MULTIWATT

VIDEO AND SOUND IF

Type	Description	Package
STV8223A	Video & Sound IF System with AV Switches	SDIP24
STV8224A	Video & Sound IF System with AV Switches	SDIP24
STV8225	AM Sound IF Processor	DIP14

TV SIGNAL PROCESSING

Type	Description	Package
TDA8217A	Low Cost Pal Decoder and Video Processor	DIP20
STV2040	Digital Convergence for projection CTV	SDIP56
STV2102B	Pal Decoder, Video Processor and H/V deflection processor	SDIP42
STV2110B	Pal Secam Decoder, Video Processor and H/V deflection processor	SDIP42
STV2112A	I ² C Bus Controller PAL/SECAM Complete TV Processor	SDIP42
STV2116A	I ² C Bus Controller PAL/NTSC Complete TV Processor	SDIP42
STV2118A	I ² C Bus Controller PAL/SECAM/NTSC Complete TV Processor	SDIP42
STV2151A	High End Multistandard Chroma Decoder, Integrated Luma and Chroma Filters	SDIP30
STV2156	2H Video Processor	SDIP30
STV2160	High End 1H Video, Deflection and SMPS Control Processor	SDIP42
STV2161	Bus-Controlled Combined Deflection, Picture Improvement and Video Processor	SDIP56
STV2162	Combined Video and Deflection Processor for 100Hz CTV	SDIP30
STV2165	Picture Signal Improvement for 2H CTV	SDIP30
STV2216	I ² C Bus-Controlled NTSC/PAL Complete TV Processor	SDIP42
STV2180	Integrated Base Band Chroma Delay Line	DIP14
TDA8219	Low Cost PAL/NTSC Decoder and Video Processor	DIP20

VIDEO AND SOUND SWITCHES

Type	Description	Package
TDA8198	Dual Audio Switch + DC Volume Control	DIP14
TDA8199	Dual DC Volume Control	DIP8
TEA2014A	Video Switch for Low Cost Solution	DIP8
TEA2114	Large Band Video Switch - Two Video Outputs - Compatible with TEA2014A	DIP8
TEA2124	Large Band Video Switch - Two Video Outputs (6dB gain)	DIP8
TEA5114A	Three Channels Switching (RGB)	DIP16
TEA5116	Five Video Switch And RGB Selection	DIP18
TEA6414A	Serial Bus Controlled Video Matrix Switch	DIP20
TEA6415C	I ² C Controlled Video Matrix Switch	DIP20
TEA6416	I ² C Controlled Video Matrix Switch	DIP20
TEA6420	I ² C Bus Controlled Audio Matrix	SDIP24
TEA6417	I ² C Controlled Video Matrix Switch	DIP20
TEA6422	I ² C Controlled Audio Matrix Switch	SDIP24
STV6400	Double SCART Interface	DIP20
STV6400D	Double SCART Interface	SO20
STV6420D	I ² C Bus Controlled Audio Matrix	SO28
STV6408	I ² C Bus Controlled Video Matrix Switch	PQFP44
TEA6415CD	I ² C Bus Controlled Video Matrix Switch	SO20
TEA6422D	I ² C Bus Controlled Video Matrix Switch	SO28
TEA6425	I ² C Bus Controlled Video Matrix Switch	DIP20
TEA6430	I ² C Bus Controlled Audio Matrix Switch	SDIP24

REMOTE CONTROL

Type	Description	Package
M145026B7	RC Encoder	DIP16
M145026D	RC Encoder	SO16
M145027B7	RC Encoder	DIP16
M145028B7	RC Decoder	DIP16
M1145028D	RC Decoder	SO16
M3004LAB1	RC Transmitter 64 Commands	DIP20
M3005LAB1	RC Transmitter 64 Commands	DIP20
M3004LD	RC Transmitter 64 Commands	SO20

VIDEO RECORDER CIRCUITS

Type	Description	Package
STV5712	FM Audio Head Amplifier	SO16
STV5725	4 Video Head Amplifier With TRIV and AGC	SO20
STV5727	2 Video Head Amplifier With TRIV and AGC	SO14N
STV5728	4 Video + 2 HIFI Head Amplifier With AGC TRIV and AGC	SO28
STV5742	2 Video Head Amplifier With TRIV and AGC	SO16N
STV5744	4 Video Head Amplifier With TRIV and AGC	SO20

SWITCH MODE POWER SUPPLY

Type	Description	Package
TEA2018A	Fixed Frequency Controller	DIP8
TEA5170	Master Slave, Secondary Controller	DIP8
TEA2261	Primary Controller for Master Slave With Analog Switch Off	DIP16
TEA2262	Primary Controller for Master Slave With Analog Switch Off for MOS Transistor	DIP16
TDA4605	Low cost free running frequency SMPS MOS Transistor	DIP8

TELETEXT DECODER

Type	Description	Package
STV5347	Teletext Decoder, with Digital Data Slicer and 4 Pages Memory On-Chip	DIP28
STV5348	Teletext and VPS Decoder, Digital Data Slicer and 8 Pages Memory On-Chip	DIP28
STV5348D	Teletext and VPS Decoder, Digital Data Slicer and 8 Pages Memory On-Chip	SO28
STV5348H	Teletext and VPS Decoder, Digital Data Slicer and 8 Pages Memory On-Chip	SO28
STV5348T	Teletext and VPS Decoder, Digital Data Slicer and 8 Pages Memory On-Chip	SO28

NICAM

Type	Description	Package
TDA8204B	Nicam Decoder	SDIP42
TDA8205	QPSK Demodulator	SDIP42

GRAPHIC

Type	Description	Package
STV9410	Graphic Display Processor for CRT and LCD	DIP20 - SO24
STV9420	Monitor OSD	DIP16
STV9421	Monitor OSD	DIP20
STV9422	Monitor OSD	SDIP24
STV9424	Monitor OSD	DIP16
STV9425	Monitor OSD	SDIP24
STV9425B	Monitor OSD	SDIP24
STV9426	Monitor OSD	DIP16

LED DISPLAY DRIVERS

Type	Description	Package
M5450B7	34 Outputs/15mA	DIP40
M5451B7	35 Outputs/15mA	DIP40
M5480B7	3.5 Digit (23 Segments)	DIP28
M5481B7	2 Digit (14 Segments)	DIP28
M5451Q	2 Digit (14 Segments)	PLCC44
M5482B7	2 Digit (15 Segments)	DIP20

VOLTAGE REGULATORS

Type	Description	Package
TDA8132	5.1V +12V Dual Disable Voltage Regulator	HEPTAWATT
TDA8137	Dual 5.1V Regulator with Disable	HEPTAWATT
TDA8138	5.1V +12V Regulator with Disable and Reset	SIP9
TDA8138A	5.1V +12V Regulator with Disable	HEPTAWATT
TDA8138B	5.1V +12V Regulator with Reset	HEPTAWATT
TDA8139	5.1V and Adjustable Voltage Regulator with Disable and Reset	SIP9
TDA8133	5.1V +8V Regulator with Disable and Reset	SIP9

SATELLITE PAY TV

Type	Description	Package
STV0030	Video and Stereo Audio Processor for Satellite	PQFP64
STV0056	Video and Stereo Audio Processor for Satellite	SDIP56
STV0056A	Same as STV0056A	SDIP56
STV0116	PAL/NTSC Digital Encoder	PLCC44
STV0117	PAL/NTSC Digital Encoder	PLCC44
STV0117A	PAL/NTSC Digital Encoder	PLCC44
STV0180	High Resolution 8-bit ADC	SO28
STV0190	Dual 6-bit ADC	SO28
STV0196B	QPSK/BPSK Demodulator and Forward Error Corrector (FEC) IC	PQFP64
STV5730A	Multistandard On-Screen Display	SO28
PTV110	Video Descrambler	SDIP42
PTV111	Pay TV Sync Separator	DIP20

TRIPLE DAC

Type	Description	Package
STV8438CV	8-Bit Triple DAC with Analog Switch	PQFP44

VIDEO AMPLIFIER

Type	Description	Temperature range (C)	Package
TSH10ID	High Speed 140MHz Amplifier Low Noise	- 40 to 105	SO8
TSH10IN	High Speed 140MHz Amplifier Low Noise	- 40 to 105	DIP8
TSH11ID	High Speed 120MHz Amplifier Mos Input	- 40 to 105	SO8
TSH11IN	High Speed 120MHz Amplifier Mos Input	- 40 to 105	DIP8
TSH22ID	Dual High Speed 25MHz Amplifier - Bipolar Input Supply Voltage 3-30V	- 40 to 125	SO8
TSH22IN	Dual High Speed 25MHz Amplifier - Bipolar Input Supply Voltage 3-30V	- 40 to 125	DIP8
TSH94ID	Quad with Standard Mode - Low Cost Amplifier - 150MHz	- 40 to 125	SO16
TSH94IN	Quad with Standard Mode - Low Cost Amplifier - 150MHz	- 40 to 125	DIP16
TSH150CD	High Speed 150MHz Amplifier Bipolar Input	0 to 70	SO8
TSH150CN	High Speed 150MHz Amplifier Bipolar Input	0 to 70	DIP8
TSH150ID	High Speed 150MHz Amplifier Bipolar Input	- 40 to 105	SO8
TSH150IN	High Speed 150MHz Amplifier Bipolar Input	- 40 to 105	DIP8
TSH151CD	High Speed 150MHz Amplifier Mos Input	0 to 70	SO8
TSH151CN	High Speed 150MHz Amplifier Mos Input	0 to 70	DIP8
TSH151ID	High Speed 150MHz Amplifier Mos Input	- 40 to 105	SO8
TSH151IN	High Speed 150MHz Amplifier Mos Input	- 40 to 105	DIP8
TSH31ID	High Speed 280MHz Amplifier Mos Input	- 40 to 105	SO8
TSH31IN	High Speed 280MHz Amplifier Mos Input	- 40 to 105	DIP8
TSH321ID	High Speed 300MHz Amplifier Mos Input	- 40 to 105	SO8
TSH321IN	High Speed 300MHz Amplifier Mos Input	- 40 to 105	DIP8