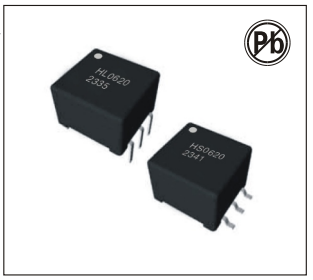
MAX253 COMPATIBLE CONVERTER TRANSFORMER

HL/HS06 SERIES



FEATURES:

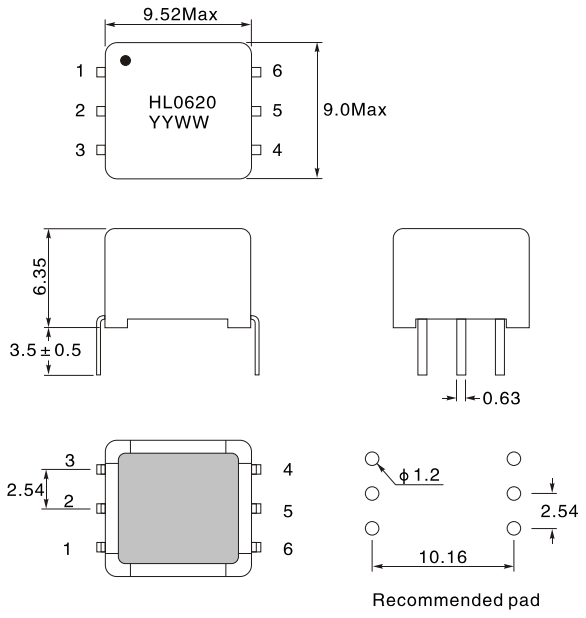
- RoHS compliant
- Maxim MAX253 compatible
- 3.3V and 5V versions
- Isolation to 4kVdc
- Frequency range to 500kHz
- Toroidal construction
- Industry–standard pinout
- UL 94 V–0 package materials
- Fully encapsulated
- Low profile

DESCRIPTION:

The HL/HS06 series of converter transformers are specifically designed for use with the MAX253 chip set to provide isolated power supplies. The 5V version can supply 1W and the 3.3V version can supply 500mW. A centre tapped Secondary winding allows for full bridge, half bridge or voltage doubling.

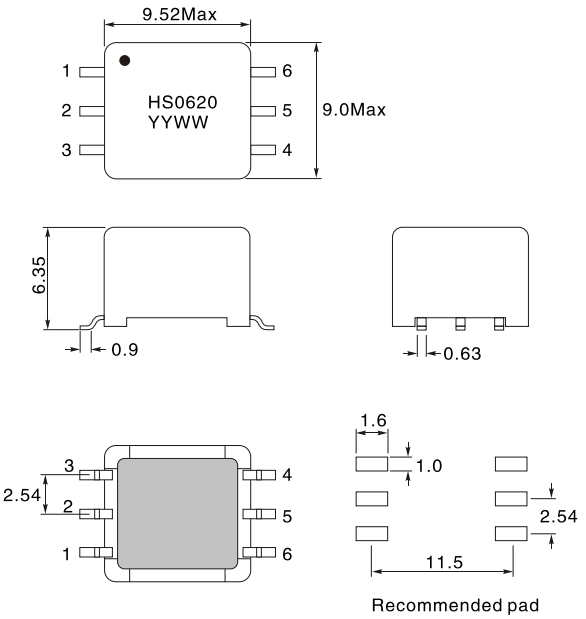
SHAPE AND DIMENSIONS Dimensions(mm)

HL06XX



Recommended pad

HS06XX



Recommended pad

ELECTRICAL CHARACTERISTICS:

Part No.	Input voltage (V)	Output voltage (V)	Max. output current (mA)	Isolation voltage (Vdc)	Turns ratio
HL0620	5.0	5.0	200	1500	1:1.31
HS0620	5.0	5.0	200	1500	1:1.31
HL0621	3.3	5.0	100	1500	1:2.27
HS0621	3.3	5.0	100	1500	1:2.27
HL0622	3.3	5.0	100	4000	1:2.14
HS0622	3.3	5.0	100	4000	1:2.14
HL0623	5.0	5.0	200	4000	1:1.33
HS0623	5.0	5.0	200	4000	1:1.33

Notes:

Operating free air temperature range .....–40℃~+85℃

Storage temperature range .....–50℃~+125℃

Lead Temperature 1.5mm from case for 10 seconds.....300℃

Peak current I_{pk}.....400mA

HL/HS0620

Parameter	Conditions	Min.	Typ.	Max.	Units
Primary Inductance, L_P	100KHz,250mV	0.6	0.83	1.10	mH
Secondary Inductance, L_S	100KHz,250mV	1.1	1.40	1.70	mH
Leakage Inductance, L_L	100KHz,250mV		0.35	1.00	uH
Interwinding Capacitance, C_{WW}	100KHz,250mV		30	50	pF
Primary D.C. Resistance, R_{DC}	>0.1Vdc		0.70	1.50	Ω
Volt–time Product, Et	Pins 1/2 or 2/3	40	50		Vus

HL/HS0621

Parameter	Conditions	Min.	Typ.	Max.	Units
Primary Inductance, L_P	100KHz,250mV	0.3	0.38	0.46	mH
Secondary Inductance, L_S	100KHz,250mV	1.6	2.00	2.40	mH
Leakage Inductance, L_L	100KHz,250mV		0.30	1.00	uH
Interwinding Capacitance, C_{WW}	100KHz,250mV		30	50	pF
Primary D.C. Resistance, R_{DC}	>0.1Vdc		0.40	1.00	Ω
Volt–time Product, Et	Pins 1/2 or 2/3	30	35		Vus

HL/HS0622

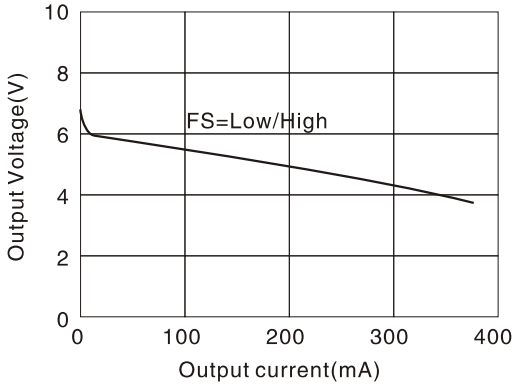
Parameter	Conditions	Min.	Typ.	Max.	Units
Primary Inductance, L_P	100KHz,20mV	110	142	185	uH
Secondary Inductance, L_S	100KHz,20mV	550	710	850	uH
Leakage Inductance, L_L	100KHz,250mV		3.0	5.0	uH
Interwinding Capacitance, C_{WW}	100KHz,250mV		4.2	8.0	pF
Primary D.C. Resistance, R_{DC}	>0.1Vdc		0.3	0.5	Ω
Volt–time Product, Et	Pins 1/2 or 2/3	18	22		Vus

HL/HS0623

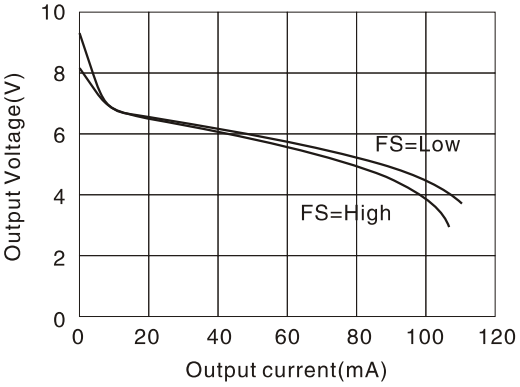
Parameter	Conditions	Min.	Typ.	Max.	Units
Primary Inductance, L_P	100KHz,20mV	190	240	310	uH
Secondary Inductance, L_S	100KHz,20mV	350	444	540	uH
Leakage Inductance, L_L	100KHz,250mV		5.2	8.0	uH
Interwinding Capacitance, C_{WW}	100KHz,250mV		4.2	8.0	pF
Primary D.C. Resistance, R_{DC}	>0.1Vdc		0.4	0.6	Ω
Volt–time Product, Et	Pins 1/2 or 2/3	25	28		Vus

VOLTAGE CURVES

HL/HS0620



HL/HS0621



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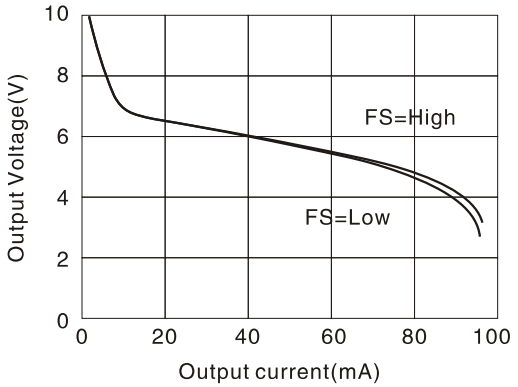
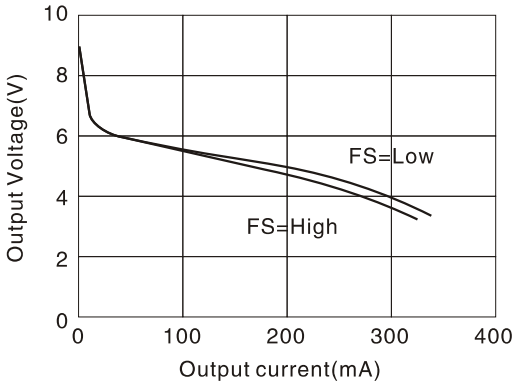
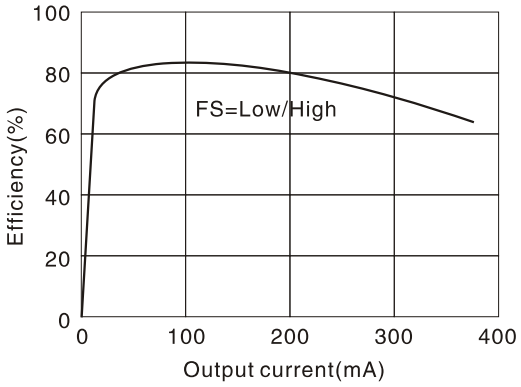


HL/HS0623



EFFICIENCY CURVES

HL/HS0620



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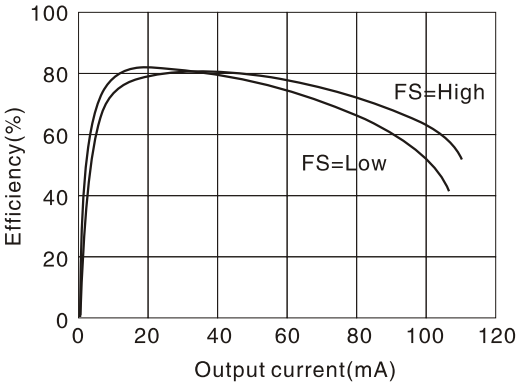
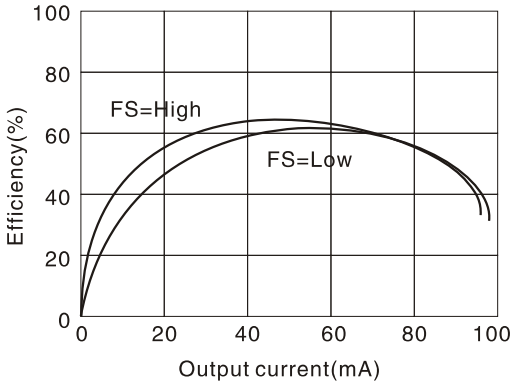
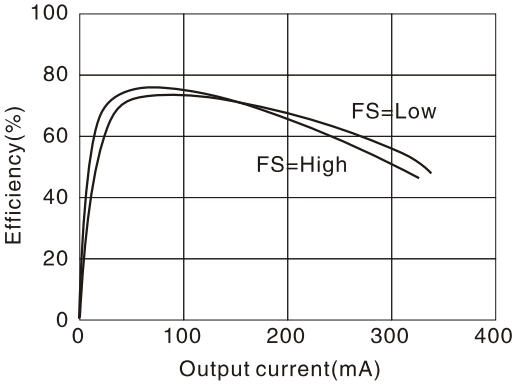


HL/HS0622

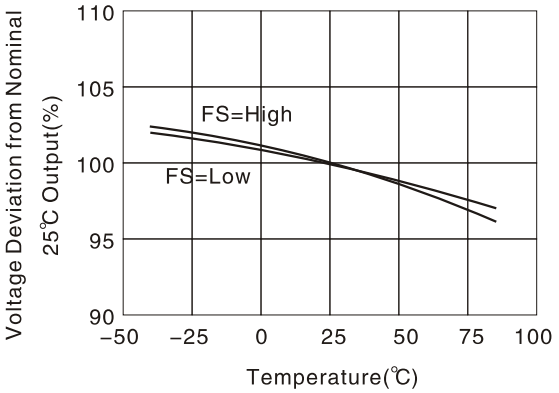


HL/HS0623

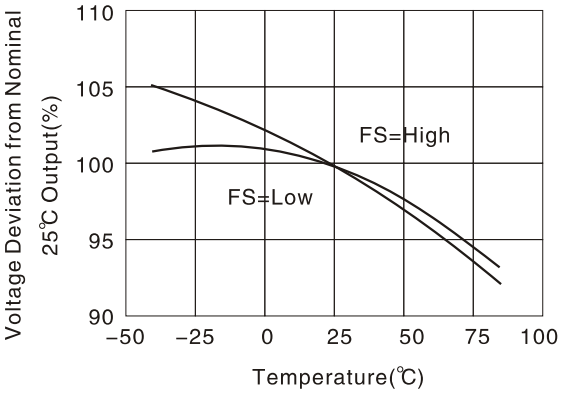


VOLTAGE DEVIATION

HL/HS0620



HL/HS0621



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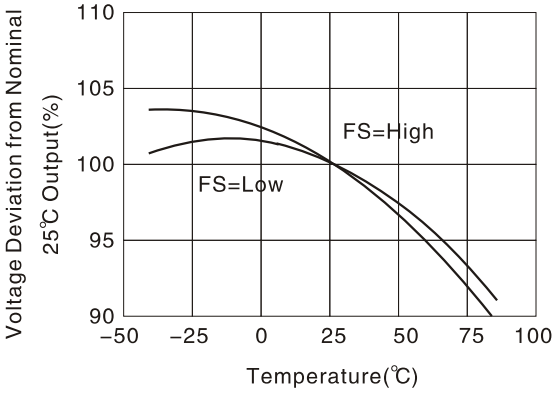

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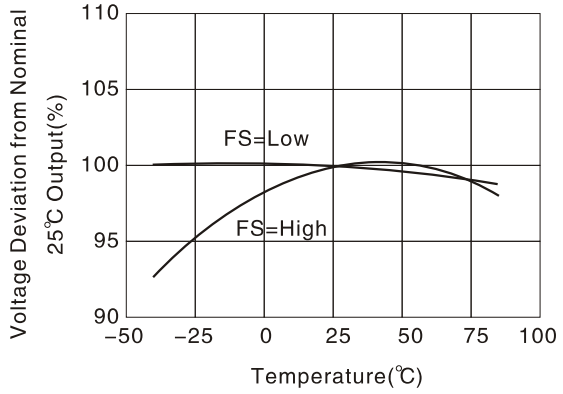
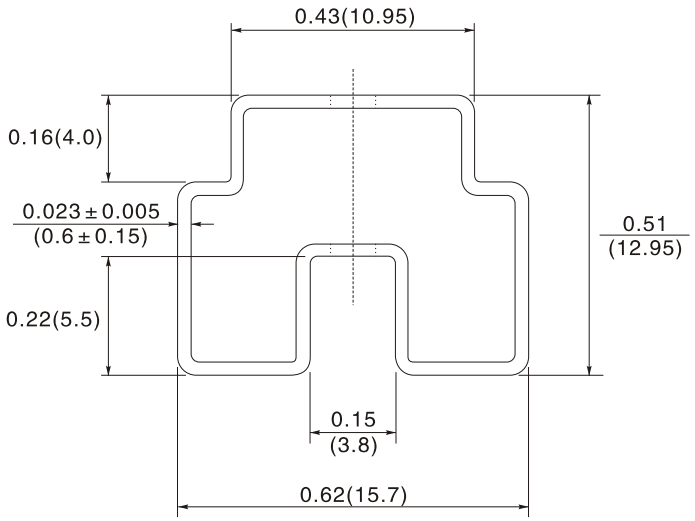


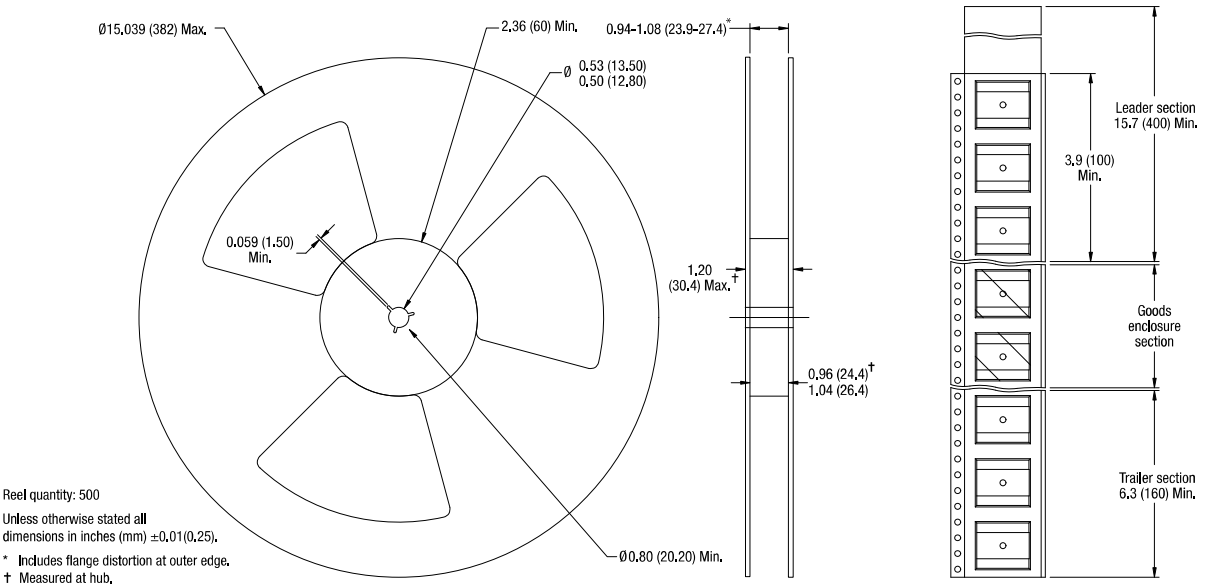
TUBE OUTLINE DIMENSIONS (HL06XX)



Tube length: 18.3 ± 0.08 (465 ± 2).
Tube quantity: 50.
Tube material: Antistatic coated clear pvc.
Unless otherwise stated all dimensions in inches(mm) ± 0.01 (0.25).

TAPE & REEL SPECIFICATIONS(HS06XX)

REEL OUTLINE DIMENSIONS

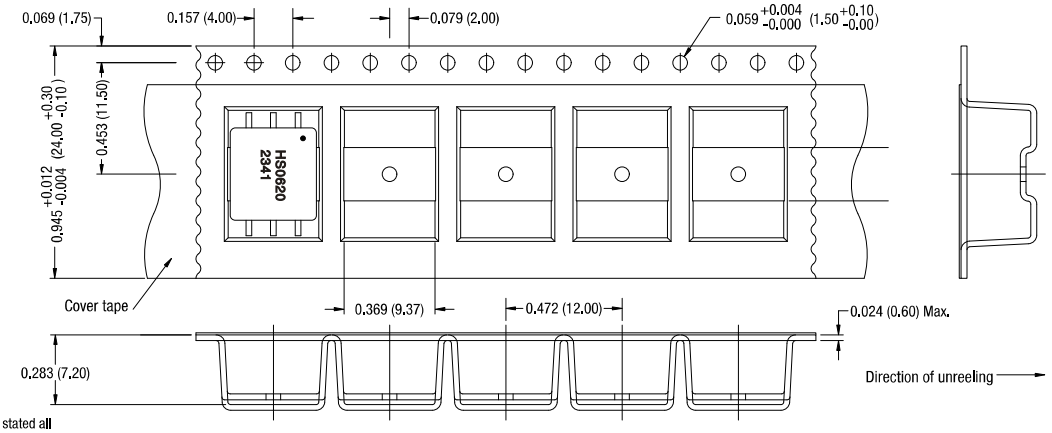


Reel quantity: 500

Unless otherwise stated all
dimensions in inches (mm) ±0.01(0.25).

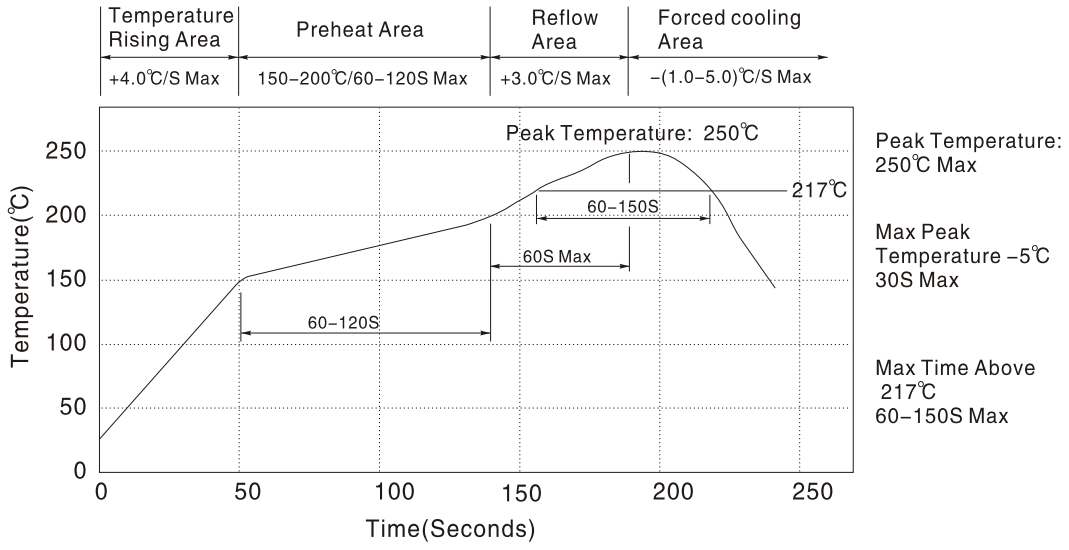
* Includes flange distortion at outer edge.
† Measured at hub.

TAPE OUTLINE DIMENSIONS



Unless otherwise stated all
dimensions in inches (mm) ±0.01(0.25).

SOLDERING PROFILE



Peak Temperature:
250℃ Max

Max Peak
Temperature -5℃
30S Max

Max Time Above
217℃
60-150S Max