

HIGH VOLTAGE LOGIC FAMILIES

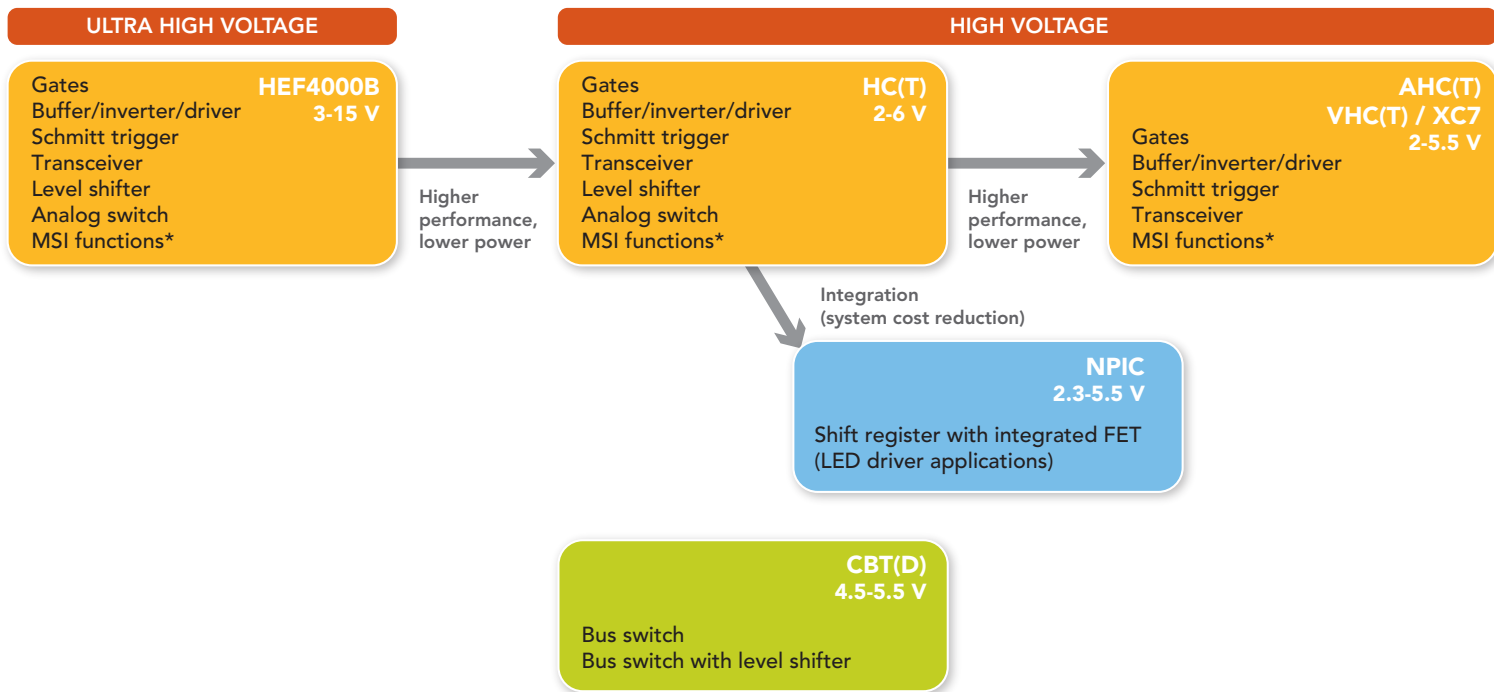
Family	HEF	CBT(D)	NPIC	HC(T)	AHC(T)	VHC(T)	XC7
Supply voltage (V)	3 to 15	4.5 to 5.5	2.3 to 5.5	2 to 6	2 to 5.5	2 to 5.5	2 to 5.5
Propagation delay, typ (ns)	60	0.25	5	9	5	5	5
Output drive (mA)	±3	N/A	100	±8	±8	±8	±8
Standby current (µA)	600	3	200	80	40	40	40
Temperature range (°C)	-40 to +85	-40 to +85	-40 to +125	-40 to +125	-40 to +125	-40 to +125	-40 to +125
Automotive grade	•	•	•	•	•	•	•
Process technology							
CMOS	•	•	•	•	•	•	•
Functions							
Gates	•			•	•	•	•
Buffer/inverter/driver	•			•	•	•	•
Schmitt trigger	•			•	•	•	•
Transceiver				•	•	•	
Level shifter/translator	•			•			
Analog switch	•			•			
CBT switch		•					
MSI functions*	•		•	•	•	•	
Features							
Overvoltage-tolerant inputs up to 5 V		•			•	•	•
Schmitt-trigger inputs	•			•	•	•	•
Low-threshold inputs				•	•	•	•
Open-drain outputs			•	•	•		
Input-clamping diodes	•		•	•			
TTL inputs		•		•	•	•	
Low delay isolation		•					

*MSI functions: shift register, flip-flop, latch, multiplexer, decoder/demultiplexer, digital comparator, PLL, counter/frequency divider, multivibrator, FIFO, parity generator

INCREASING PERFORMANCE



HIGH VOLTAGE LOGIC FAMILY—MIGRATION PATH



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