

### The bq2002 Family for Fast Charge Termination Control of NiCd and NiMH Batteries

Fast Charge Control	Min Prechg Qual V (LBAT)	High Temp Cutoff Voltage (TCO)	High Temp Fault Voltage (HTF)	Low Temp Fault Voltage (LTF)	Sync Voltage Sampling Max Period	$\Delta T/\Delta t$	$-\Delta V$	PVD	Fast Charge Rate Set by TM Pin	Fast Charge Max Time-out [min]	PVD, $-\Delta V$ , Holdoff Time [sec]	Topoff Charge Rates	Topoff Period	Topoff Pulse Width	Maintenance Charge Rate	Pulse Trickle Period	Trickle Pulse Width
bq2002	none	0.5*Vcc	none	none	no			x	C/2	160	600	C/32	4.6 ms	286 us	C/64	9.14 ms	286 us
								x	1C	80	300	C/16	4.6 ms	286 us	C/64	18.3 ms	286 us
						x			2C	40	150	none			C/32	18.3 ms	286 us
bq2002F	none	0.5*Vcc	none	none	no			x	C/2	160	600	C/32	4.6 ms	286 us	C/64	9.14 ms	286 us
								x	1C	100	300	C/16	4.6 ms	286 us	C/64	18.3 ms	286 us
						x			2C	40	150	none			C/32	18.3 ms	286 us
bq2002C	0.175*Vcc	0.5*Vcc	0.6*Vcc	none	18.7 sec			x	C/2	160	300	none			C/32	1.17 sec	73 ms
					18.7 sec			x	1C	80	150	none			C/32	1.17 sec	37 ms
					9.4 sec		x		2C	40	75	none			C/32	1.17 sec	18 ms
bq2002E	0.175*Vcc	0.5*Vcc	0.6*Vcc	none	18.7 sec			x	C/2	200	300	none			C/32	1.17 sec	73 ms
					18.7 sec			x	1C	80	150	C/16	1.17 sec	73 ms	C/32	1.17 sec	37 ms
					9.4 sec		x		2C	40	75	none			C/32	1.17 sec	18 ms
bq2002G	0.175*Vcc	0.5*Vcc	0.6*Vcc	none	18.7 sec			x	C/2	160	300	none			C/32	1.17 sec	73 ms
					18.7 sec			x	1C	80	150	C/16	1.17 sec	73 ms	C/32	1.17 sec	37 ms
					9.4 sec		x		2C	40	75	none			C/32	1.17 sec	18 ms
bq2002T	none	0.225*Vcc	0.25*Vcc	0.4*Vcc	no	x			C/4	320		C/64	4.6 ms	286 us	C/256	18.3 ms	286 us
						x			1C	80		C/16	4.6 ms	286 us	C/256	73.1 ms	286 us
						x			2C	40		none			C/128	73.1 ms	286 us
bq2002D	none	0.225*Vcc	0.25*Vcc	none	no	x			C/4	440		none			none		
						x			1C	110		none			none		
						x			2C	55		none			none		

**Note:** For all bq2002x devices, Max Cut-off Voltage (MCV) = 2V