Timer Reset Function Of Li-ion Protection IC

Reported：台北工程部

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Timer Reset Function

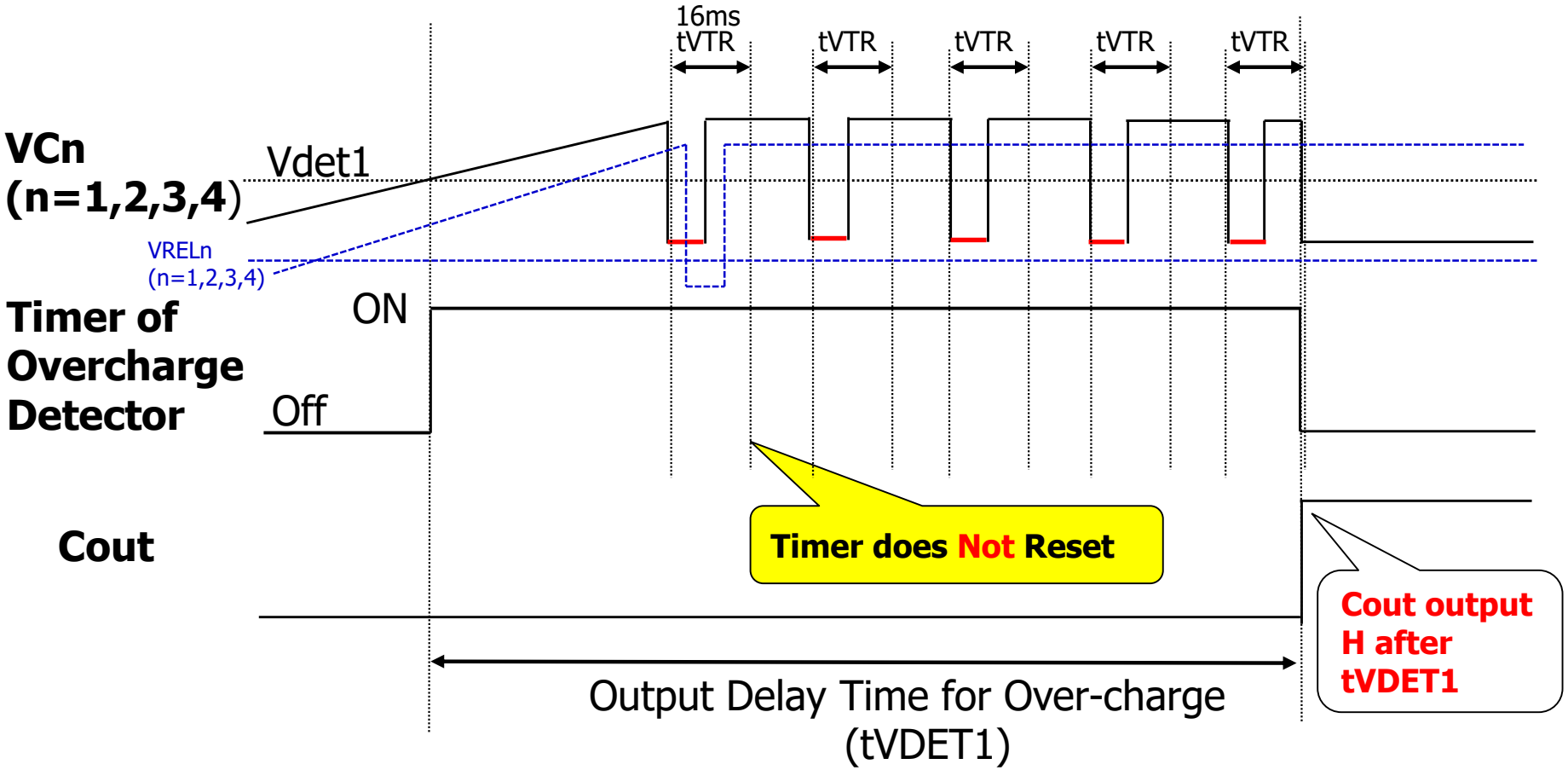
The low duty of the general switching charger is over 16ms, the timer reset function is mainly to monitor the low duty as red line in next page.

When low duty is less than 16ms, it means that's not caused by charger. In this case, COUT pin will output H signal to turn on the MOSFET to melt the SCP after over charging voltage occurs and a delay time.

Timer of over charging detector will keep counting if the VCn drops lowers than V_{REL} and then rises higher than V_{DET1} within tV_{TR} as blue line in next page.

Timer Reset Function

Timing Chart 1 (Case : Off Pulse is short)



Vdet1 Timer Reset Time ; 16ms±30% (25°C)

5 to 50ms (-30° to 70°C)

Timer Reset Function

When low duty is over 16ms, it would be judged to normal charging, the timer will automatically reset.

The delay time will automatically re-counting, due to COUT will not output H to turn on MOSFET.

So this function can avoid malfunction, and making charging process normal.

Timer Reset Function

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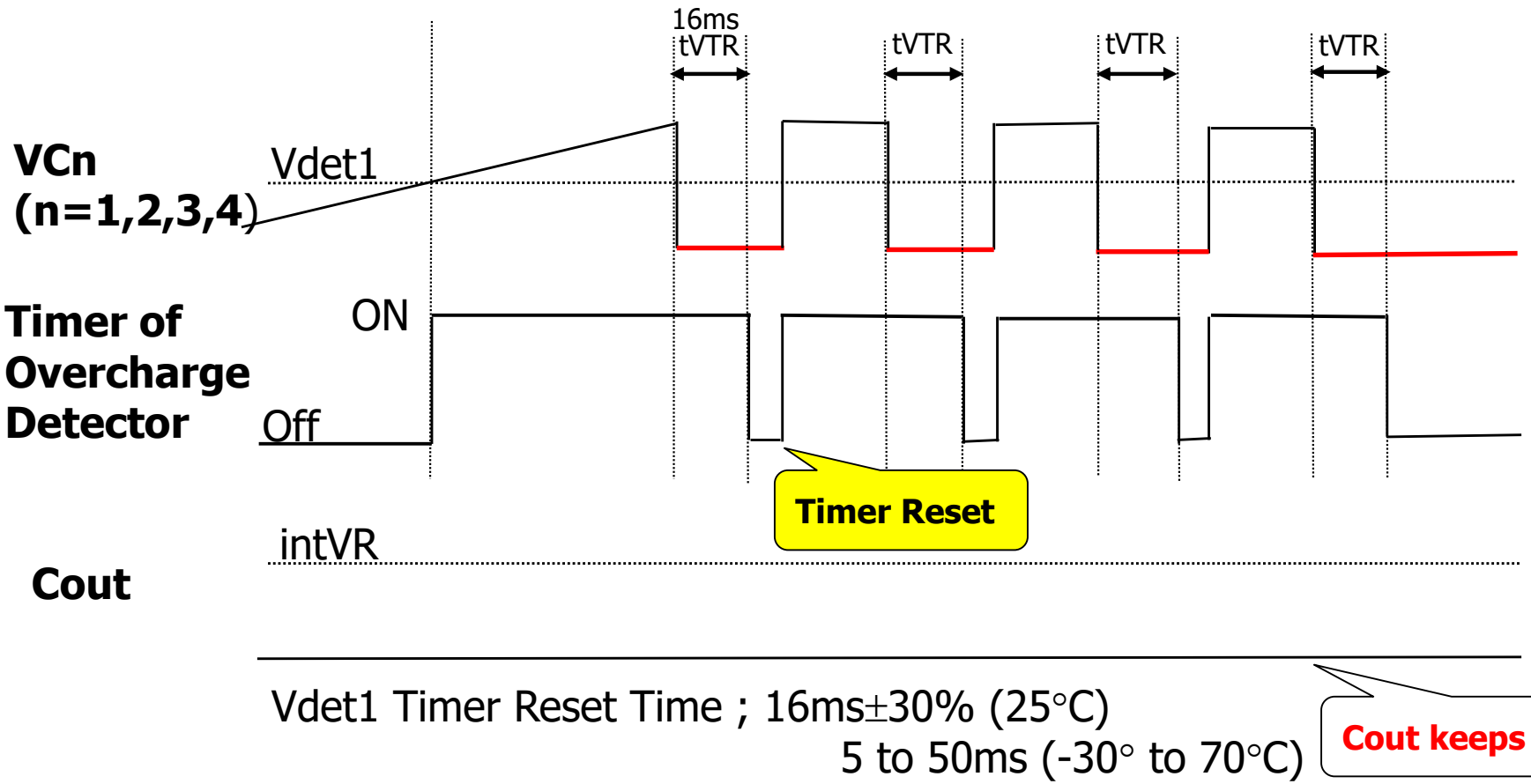
Timing Chart 2 (Case : Off Pulse is long enough)



欲知詳情請洽...

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Ricoh Li-ion官網資訊:

http://www.e-devices.ricoh.co.jp/en/products/product_power/bmu/

Thank You

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