

High Side Switch IC and Load Switch IC

Fold back characteristics

The output current-output voltage characteristic of the high side switch ICs and load switch ICs have a fold back characteristics as shown in Figure 1.

(1) When the load current is gradually increased while the switch is turned ON, the output current (I_{OUT}) increases until it reaches the overcurrent threshold. After the output current reaches the overcurrent threshold, further increasing the current load reduces the output current to the limit current. At this point, the output voltage is “load resistor value \times limit current”.

(2) When the switch is turned ON with a load higher than the limit current being applied, the IC detects an overcurrent and immediately limits the current to the limit current. At this point, the output voltage is “load resistor value \times limit current”.

When the load is reduced to below the limit current, the IC automatically returns from the current limit state. In the models with a built-in latch, the output enters the current limit state and the limit current is output after the overcurrent detection. When the time period specified as the /OC output delay time has elapsed in this state, the IC is latched-OFF and the output current is suspended.

Models with built-in latch

High side switch IC: BD6538G, BD2220G, BD2221G, BD6538G-LB, BD2220G-LB, BD2221G-LB

Load switch IC: BD2202G, BD2206G, BD2202G-LB, BD2206G-LB

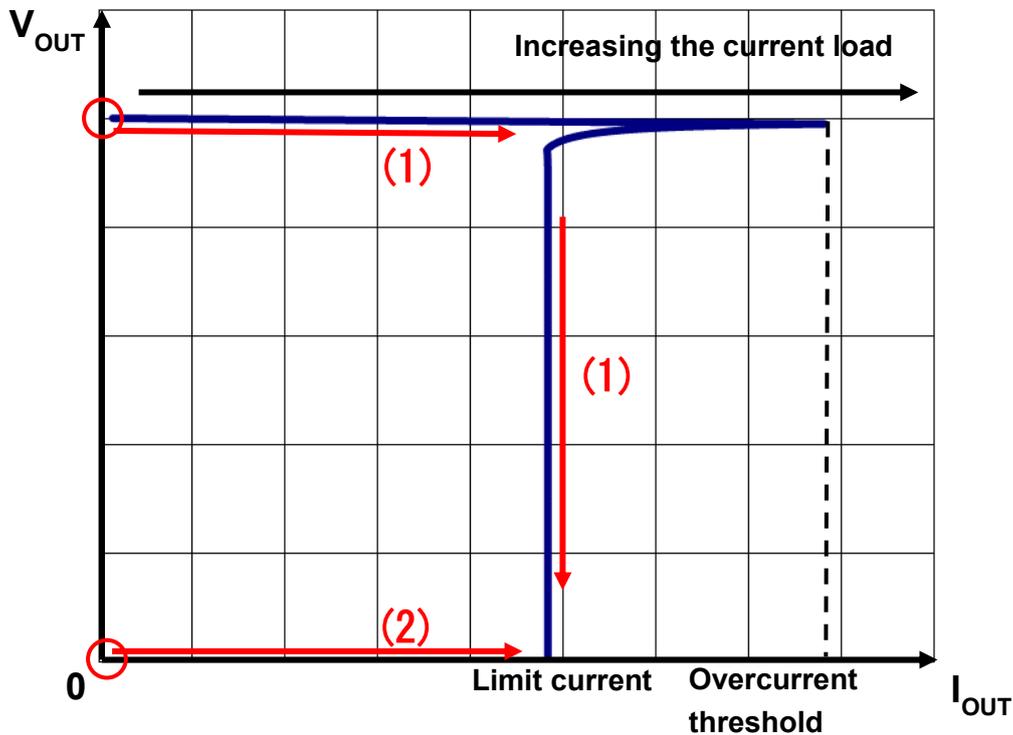


Figure 1. Fold back characteristics

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