

Test Parameter	Description	MIN	TYP	MAX	UNITS
INPUT SUPPLY (IN)					
$I_{Q(ON)}$	IN supply quiescent current		130	165	μA
$I_{Q(OFF)}$	IN supply OFF state current ($V_{SD(F)} < V_{EN} < V_{UVLO(F)}$)		144	230	μA
I_{SD}	IN supply shutdown current ($V_{EN} < V_{SD(F)}$)		0.6	1.5	μA
$V_{UVP(R)}$	IN supply UVP rising threshold	2.46	2.54	2.61	V
$V_{UVP(F)}$	IN supply UVP falling threshold	2.31	2.42	2.54	V
$V_{OVP(R)}$	VIN fixed overvoltage rising threshold, OVLO = GND, $T_J = 25^\circ C$	5.55	5.98	6.5	V
V_{OVPhys}	VIN fixed overvoltage hysteresis, OVLO = GND	85	111	135	mV
OVERCURRENT PROTECTION (OUT)					
I_{LIM}	Overcurrent threshold, $ILIM = \text{Open}$, $T_J = 25^\circ C$		0.116		A
	Overcurrent threshold, $R_{ILIM} = 250 \text{ k}\Omega$, $T_J = 25^\circ C$		0.212		A
	Overcurrent threshold, $R_{ILIM} = 100 \text{ k}\Omega$, $T_J = 25^\circ C$		0.516		A
	Overcurrent threshold, $R_{ILIM} = 62.5 \text{ k}\Omega$, $T_J = 25^\circ C$		0.856		A
	Overcurrent threshold, $R_{ILIM} = 34.48 \text{ k}\Omega$, $T_J = 25^\circ C$	1.189	1.45	1.711	A
	Overcurrent threshold, $R_{ILIM} = 25 \text{ k}\Omega$, $T_J = 25^\circ C$		2.36		A

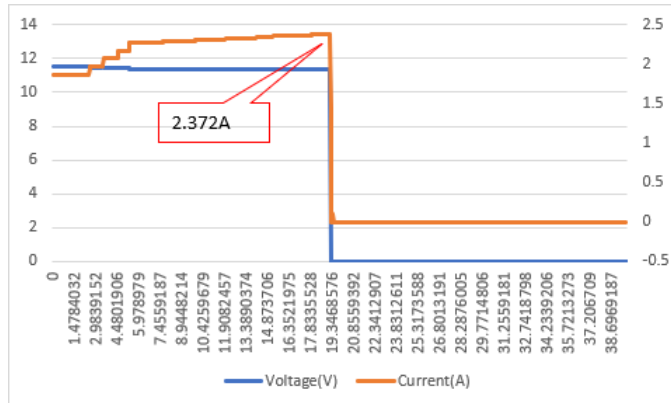
Use equation below to calculate the R_{ILIM} value for overcurrent thresholds $\geq 200 \text{ mA}$.

$$R_{ILIM} = \frac{50000}{I_{LIM}} \quad (5)$$

1 Features

- Wide input voltage range: 2.7 V to 19 V
 - 21-V absolute maximum
- Low on-resistance: $R_{on} = 106 \text{ -m}\Omega$ (typical)
- Active high enable input with adjustable undervoltage lockout (UVLO)
- Overvoltage protection with a response time of 1.3 μs (typical)
 - Fixed internal threshold: 5.98 V (typical)
 - Adjustable threshold using external resistor divider
- Overcurrent protection:
 - Adjustable current limit threshold: 0.1 A to 2 A
 - **Current limit accuracy:**
 - $\pm 20\%$ (typical) across current range
 - $\pm 18\%$ (maximum) at 1.45-A current limit, $T_A = 25^\circ C$

OCP test result on customer board [$R(ILIM)=27.4\text{kohm} \rightarrow ILIM=1.825A$]



Calculated $ILIM$

$$R(ILIM, \text{max})=27.674\text{kohm} / ILIM=1.80675A / ILIM+20\%=2.1681A$$

$$R(ILIM, \text{min})=27.126\text{kohm} / ILIM=1.84325A / ILIM+20\%=2.2119A$$