



SPECIFICATIONS							
Parameter	Symbols	Test Conditions Unless Otherwise Specified $6\text{ V} \leq V_A \leq 18\text{ V}$ $C_{VDD} = 0.1\ \mu\text{F}$, $C_P = 0.02\ \mu\text{F}$	Temp ^a	Limits ^d			Units
				Min ^b	Typ ^c	Max ^b	
On-Resistance	R_{AB}	$V_A = 10\text{ V}$, $I_A = 1\text{ A}$	Room			0.08	Ω
Leakage Current	$I_{AB(off)}$	$V_A = 16\text{ V}$, $V_B = 0\text{ V}$	Room			10	μA
IN Low Threshold	$V_{IN(L)}$		Full			1	V
IN High Threshold	$V_{IN(H)}$		Full	4.0			
IN Input Current	$I_{IN(H)}$	$V_{IN} = 5.0\text{ V}$	Full			1	μA
Turn-On Delay IN to A or B	$t_{ON(IN)}$	ENABLE = 5 V, $V_A = 10\text{ V}$, $R_L = 5\ \Omega$ Test Circuit 1	Full			10	μs
Turn-Off Delay IN to A or B	$t_{OFF(IN)}$		Full			10	
ENABLE Low Threshold	$V_{ENABLE(L)}$		Full			3.0	V
ENABLE High Threshold	$V_{ENABLE(H)}$		Full	4.4			
ENABLE Input Current	$I_{ENABLE(H)}$	$V_{ENABLE} = 5\text{ V}$	Full			50	μA
Setup Time from ENABLE to Switch	$t_{ENABLE(H)}$	$V_A = 10\text{ V}$, $V_{IN} = 0\text{ V}$, Test Circuit 2	Room			2.0	ms
		$V_A = 6\text{ V}$, $V_{IN} = 0\text{ V}$, Test Circuit 2	Full			10	
On-State Drain	$I_{A(on)}$	AB Shorted, $V_A = 10\text{ V}$, $V_{ENABLE} = 5\text{ V}$	Full			60	μA
		AB Shorted, $V_A = 5\text{ V}$, $V_{ENABLE} = 5\text{ V}$	Full			300	
Off-State Drain	$I_{A(off)}$	AB Shorted, $V_A = 10\text{ V}$, $V_{ENABLE} = 0\text{ V}$	Full			10	

Notes:

- a. Room = 25°C, Full = as determined by the operating temperature suffix.
- b. The algebraic convention whereby the most negative value is a minimum and the most positive a maximum, is used in this data sheet.
- c. Typical values are for DESIGN AID ONLY, not guaranteed nor subject to production testing.
- d. Tested at room temperature, high temperature guaranteed by statistical data correlation techniques.

TEST CIRCUIT

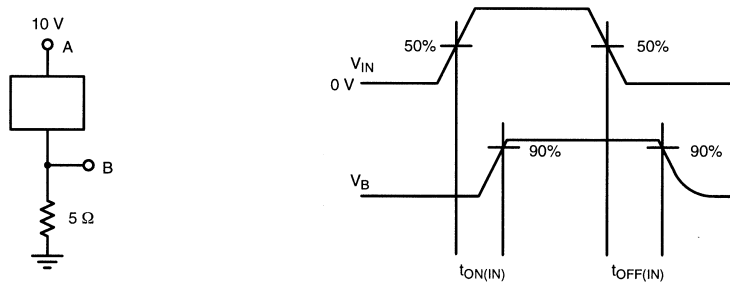


FIGURE 1. Test Circuit 1

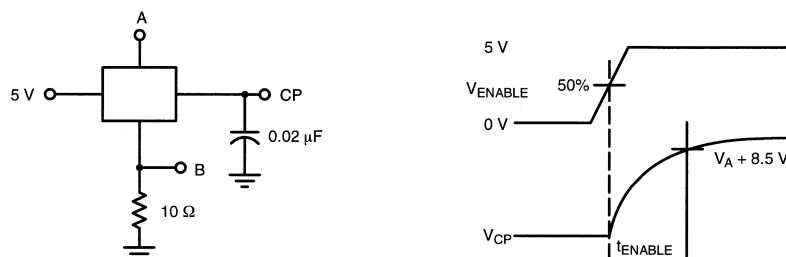
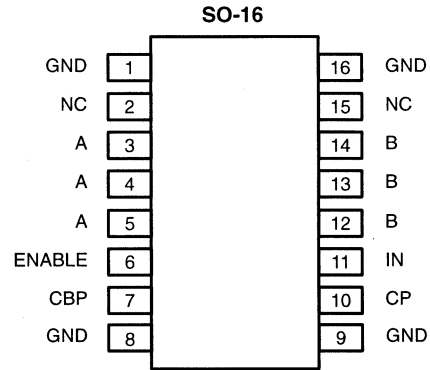


FIGURE 2. Test Circuit 2



PIN CONFIGURATION AND TRUTH TABLE

TRUTH TABLE			
ENABLE	IN	Switch Controller State	Switch
0	0	Inactive	X
0	1	Inactive	X
1	0	Set-Up	Off
1	1	Active	On



Top View

Order Number: Si9718CY

PIN DESCRIPTION		
Pin Number	Symbol	Description
1, 8, 9, 16	GND	Common connection for negative battery terminals.
2, 15	NC	No internal connection.
3, 4, 5	A	A-terminal of the battery switch, bidirectional.
6	ENABLE	Logic input, ENABLE. Activates charge pump and switch drive logic.
7	CBP	Internally generated logic power supply, V_{DD} . Requires external bypass capacitor connected to pin 8.
10	CP	Charge pump output terminal. Requires external capacitor connected to pin 9.
11	IN	Logic input, IN. A high level turns on the switch.
12, 13, 14	B	B-terminal of the battery switch, bidirectional.

APPLICATIONS DIAGRAM

