



## Si3865BDV vs. Si3865DV

**Description:** Load Switch with Level-Shift

**Package:** TSOP-6

**Pin Out:** Identical

**Part Number Replacements:**

Si3865BDV-T1 Replaces Si3865DV-T1

Si3865BDV-T1-E3 (Lead (Pb)-free version) Replaces Si3865DV-T1-E3 (Lead (Pb)-free version)

<b>ABSOLUTE MAXIMUM RATINGS</b> $T_A = 25\text{ }^\circ\text{C}$ , unless otherwise noted				
Parameter	Symbol	Si3865BDV	Si3865DV	Unit
Input Voltage	$V_{IN}$	8	8	V
ON/OFF Voltage	$V_{ON/OFF}$	$\pm 8$	$\pm 8$	
Load Current	Continuous	$I_L$	2.9	A
	Pulsed		6	
Continuous Intrinsic Diode Conduction	$I_S$	- 1	- 1	
Power Dissipation	$P_D$	0.83	0.83	W
Operating Junction and Storage Temperature Range	$T_j$ and $T_{stg}$	- 55 to 150	- 55 to 150	$^\circ\text{C}$
Maximum Junction-to-Ambient	$R_{thJA}$	150	150	$^\circ\text{C/W}$

<b>SPECIFICATIONS</b> $T_J = 25\text{ }^\circ\text{C}$ , unless otherwise noted									
Parameter	Symbol	Si3865BDV			Si3865DV			Unit	
		Min	Typ	Max	Min	Typ	Max		
<b>OFF Characteristic</b>									
Reverse Leakage Current	$I_{FL}$			1			1	$\mu\text{A}$	
Diode Forward Voltage	$V_{SD}$		- 0.77	- 1		- 0.7	- 1	V	
<b>ON Characteristic</b>									
Input Voltage Range	$V_{IN}$	1.8		8	1.8		8	nC	
On-Resistance (P-Channel) at 1 A	$V_{GS} = 4.5\text{ V}$	$r_{DS(on)}$		0.045	0.060		0.064	0.080	$\Omega$
	$V_{GS} = 2.5\text{ V}$			0.075	0.100		0.092	0.110	
	$V_{GS} = 1.8\text{ V}$			0.135	0.175		0.135	0.175	
On-State Drain Current (P-Channel)	$V_{IN} = 5\text{ V}$	$I_{D(on)}$	1			1		A	
	$V_{IN} = 13\text{ V}$		1			1			

Specification comparisons are supplied as a courtesy to compare two devices and do not constitute a commercial product datasheet or any guarantee of identical performance. Designers should refer to the appropriate datasheets of the same number for guaranteed specification limits.