



## Si7336ADP vs. Si7336DP

**Description:** N-Channel MOSFET  
**Package:** PowerPAK® S0-8  
**Pin Out:** Identical

**Part Number Replacements:**

Si7336ADP-T1 Replaces Si7336DP-T1  
Lead (Pb)-Free: Si7336ADP-T1—E3 Replaces Si7336DP-T1—E3

**Summary of Performance:**

The Si7336ADP is the recommended replacement for the original Si7336DP. The Si7336ADP has lower on-resistance, otherwise, both part numbers perform identically.

<b>ABSOLUTE MAXIMUM RATINGS (T<sub>A</sub> = 25 °C UNLESS OTHERWISE NOTED)</b>					
Parameter		Symbol	Si7336ADP	Si7336DP	Unit
Drain-Source Voltage		V <sub>DS</sub>	30	30	V
Gate-Source Voltage		V <sub>GS</sub>	±20	±20	
Continuous Drain Current*	T <sub>A</sub> = 25°C	I <sub>D</sub>	18	18	A
	T <sub>A</sub> = 70°C		15	15	
Pulsed Drain Current		I <sub>DM</sub>	70	70	
Continuous Source Current* (MOSFET Diode Conduction)		I <sub>S</sub>	1.8	1.8	
Avalanche Current	L = 1.0 mH	I <sub>AS</sub>	50	NS**	
Power Dissipation	T <sub>A</sub> = 25°C	P <sub>D</sub>	1.9	1.9	W
	T <sub>A</sub> = 70°C		1.2	1.2	
Operating Junction and Storage Temperature Range		T <sub>J</sub> and T <sub>stg</sub>	-55 to 150	-55 to 150	°C
Maximum Junction-to-Ambient*		R <sub>thJA</sub>	65	65	°C/W
Maximum Junction-to-Case (Drain)*		R <sub>thJA</sub>	1.5	1.5	

Note: \* Indicates Steady State, all others are independent of time.  
\*\* NS denotes parameter not specified in original data sheet.

<b>SPECIFICATIONS (T<sub>J</sub> = 25 °C UNLESS OTHERWISE NOTED)</b>									
Parameter	Symbol	Si7336ADP			Si7336DP			Unit	
		Min	Typ	Max	Min	Typ	Max		
<b>Static</b>									
Gate-Threshold Voltage	V <sub>GS(th)</sub>	1.0		3.0	1.0		3.0	V	
Gate-Body Leakage	I <sub>GSS</sub>			±100			±100	nA	
Zero Gate Voltage Drain Current	I <sub>DSS</sub>			1			1	µA	
On-State Drain Current	V <sub>GS</sub> = 10 V I <sub>D(on)</sub>	30			30			A	
Drain-Source On-Resistance	V <sub>GS</sub> = 10 V r <sub>DS(on)</sub>		0.0024	0.0030		0.0026	0.00325	Ω	
	V <sub>GS</sub> = 4.5 V		0.0031	0.0040		0.0033	0.0042		
Forward Transconductance	g <sub>fs</sub>		110			110		S	
Diode Forward Voltage	V <sub>SD</sub>		0.72	1.1		0.72	1.1	V	
<b>Dynamic</b>									
Total Gate Charge	Q <sub>g</sub>		36	50		36	50	nC	
Gate-Source Charge	Q <sub>gs</sub>		18			18			
Gate-Drain Charge	Q <sub>gd</sub>		10			10			
Gate Resistance	R <sub>g</sub>	0.8	1.3	2.0	0.8	1.3	2.0	Ω	
Input Capacitance	C <sub>iss</sub>		5600			5600		pF	
Output Capacitance	C <sub>oss</sub>		860			860			
Reverse Transfer Capacitance	C <sub>rss</sub>		415			415			

# Specification Comparison

Vishay Siliconix



SPECIFICATIONS (T <sub>J</sub> = 25 °C UNLESS OTHERWISE NOTED)								
Parameter	Symbol	Si7336ADP			Si7336DP			Unit
		Min	Typ	Max	Min	Typ	Max	
<b>Switching</b>								
Turn-On Time	t <sub>d(on)</sub>		24	35		24	35	ns
	t <sub>r</sub>		16	25		16	25	
Turn-Off Time	t <sub>d(off)</sub>		90	140		90	140	
	t <sub>f</sub>		32	50		32	50	
Source-Drain Reverse Recovery Time	t <sub>rr</sub>		45	70		45	70	