



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.

ABSOLUTE MAXIMUM RATINGS ($T_A = 25^\circ\text{C}$ UNLESS OTHERWISE NOTED)

Parameter		Symbol	Si7336ADP	Si7336DP	Unit
Drain-Source Voltage		V_{DS}	30	30	V
Gate-Source Voltage		V_{GS}	± 20	± 20	
Continuous Drain Current*	$T_A = 25^\circ\text{C}$	I_D	18	18	A
	$T_A = 70^\circ\text{C}$		15	15	
Pulsed Drain Current		I_{DM}	70	70	
Continuous Source Current* (MOSFET Diode Conduction)		I_S	1.8	1.8	
Avalanche Current	$L = 1.0\text{ mH}$	I_{AS}	50	NS**	
	$T_A = 25^\circ\text{C}$		1.9	1.9	W
Power Dissipation	$T_A = 70^\circ\text{C}$	P_D	1.2	1.2	
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}	65	65	$^\circ\text{C/W}$
Maximum Junction-to-Case (Drain)*		R_{thJA}	1.5	1.5	

Note: * Indicates Steady State, all others are independent of time.

** NS denotes parameter not specified in original data sheet.

SPECIFICATIONS ($T_J = 25^\circ\text{C}$ UNLESS OTHERWISE NOTED)

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

Specification Comparison

Vishay Siliconix



SPECIFICATIONS (T _J = 25 °C UNLESS OTHERWISE NOTED)								
Parameter	Symbol	Si7336ADP			Si7336DP			Unit
		Min	Typ	Max	Min	Typ	Max	
Switching								
Turn-On Time	t _{d(on)}		24	35		24	35	ns
	t _r		16	25		16	25	
Turn-Off Time	t _{d(off)}		90	140		90	140	
	t _f		32	50		32	50	
Source-Drain Reverse Recovery Time	t _{rr}		45	70		45	70	