Si7483ADP vs. Si7483DP

Description: **P-Channel MOSFET**
Package: **PowerPAK® SO-8**
Pin Out: **Identical**

Part Number Replacements:
Si7483ADP-T1 Replaces Si7483DP-T1
Lead (Pb)-free: Si7483ADP-T1-E3 Replaces Si7483DP-T1-E3

ABSOLUTE MAXIMUM RATINGS T_A = 25 °C, unless otherwise noted

Parameter		Symbol	Si7483ADP	Si7483DP	Unit
Drain-Source Voltage		V_{DS}	- 30	- 30	V
Gate-Source Voltage		V_{GS}	± 20	± 20	
Continuous Drain Current[a]	T_A = 25 °C	I_D	- 14	- 14	A
	T_A = 70 °C		- 11	- 11	
Pulsed Drain Current		I_{DM}	- 60	- 60	
Continuous Source Current[a] (MOSFET Diode Conduction)		I_S	- 1.6	- 1.6	
Power Dissipation	T_A = 25 °C	P_D	1.9	1.9	W
	T_A = 70 °C		1.2	1.2	
Operating Junction and Storage Temperature Range		T_j and T_{stg}	- 55 to 150	- 55 to 150	°C
Maximum Junction-to-Ambient[a]		R_{thJA}	65	65	°C/W
Maximum Junction-to-Case (Drain)[a]			1.5	1.5	

Notes:
a. Indicates Steady State, all others are independent of time.
b. NS denotes parameter not specified in original data sheet.

SPECIFICATIONS T_J = 25 °C, unless otherwise noted

Parameter		Symbol	Si7483ADP			Si7483DP			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	$r_{DS(on)}$		0.0047	0.0057		0.0041	0.005	Ω
	V_{GS} = - 4.5 V			0.0075	0.0095		0.0077	0.0095	
Forward Transconductance		g_{fs}		70			70		S
Diode Forward Voltage		V_{SD}		- 0.73	- 1.1		- 0.75	- 1.1	V
Dynamic									
Total Gate Charge		Q_g		120	180		120	180	nC
Gate-Source Charge		Q_{gs}		18			18.3		
Gate-Drain Charge		Q_{gd}		33			33.2		
Gate Resistance		R_g	1.6	3.2	4.8		4		Ω
Switching									
Turn-On Time		$t_{d(on)}$		22	35		25	40	ns
		t_r		33	50		40	65	
Turn-Off Time		$t_{d(off)}$		210	320		220	350	
		t_f		130	200		125	200	
Source-Drain Reverse Recovery Time		t_{rr}		70	130		87	135	

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.