Si4953ADY vs. Si4953DY

Description: **Dual P-Channel, 30 V (D-S) MOSFET**
Package: **SO-8**
Pin Out: **Identical**

Part Number Replacements

Si4953ADY-T1-E3 Replaces Si4953DY-T1-E3
Si4953ADY-T1-E3 Replaces Si4953DY-T1

ABSOLUTE MAXIMUM RATINGS (T_A = 25 °C, unless otherwise noted)					
Parameter		**Symbol**	**Si4953ADY**	**Si4953DY**	**Unit**
Drain-Source Voltage		V_{DS}	- 30	- 30	V
Gate-Source Voltage		V_{GS}	± 20	± 20	
Continuous Drain Current	T_A = 25 °C	I_D	- 4.9	- 4.9	A
	T_A = 70 °C		- 3.9	- 3.9	
Pulsed Drain Current		I_{DM}	- 30	- 30	
Continuous Source Current (MOSFET Diode Conduction)		I_S	- 1.7	- 1.7	
Power Dissipation	T_A = 25 °C	P_D	2.0	2.0	W
	T_A = 70 °C		1.3	1.3	
Operating Junction and Storage Temperature Range		T_j and T_{stg}	- 55 to 150	- 55 to 150	°C
Maximum Junction-to-Ambient		R_{thJA}	62.5	62.5	°C/W

SPECIFICATIONS (T_J = 25 °C, unless otherwise noted)									
Parameter		**Symbol**	**Si4953ADY**			**Si4953DY**			**Unit**
			Min	**Typ**	**Max**	**Min**	**Typ**	**Max**	
Static									
Gate-Threshold Voltage		$V_{GS(th)}$	- 1			- 1			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			- 20			A
Drain-Source On-Resistance	V_{GS} = - 10 V	$r_{DS(on)}$		0.045	0.053		0.043	0.053	Ω
	V_{GS} = - 4.5 V			0.075	0.090		0.070	0.095	
Forward Transconductance		g_{fs}		9			10		S
Diode Forward Voltage		V_{SD}		- 0.8	- 1.2		- 0.8	- 1.2	V
Dynamic									
Total Charge		Q_g		15	25		16	25	nC
Gate-Source Charge		Q_{gs}		4			5		
Gate-Drain Charge		Q_{gd}		2			2		
Gate Resistance		R_g		NS		2		7.1	Ω
Switching									
Turn-On Time		$t_{d(on)}$		7	15		9	15	ns
		t_r		10	20		13	20	
Turn-Off Time		$t_{d(off)}$		40	80		25	40	
		t_f		20	40		15	25	
Source-Drain Reverse Recovery Time		t_{rr}		30	60		60	90	

NS denotes parameter not specified

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.