Si4465ADY vs. Si4465DY

Description: **P-Channel, 1.8 V (G-S) MOSFET**
Package: **SO-8**
Pin Out: **Identical**

Part Number Replacements

Si4465ADY-T1-E3 Replaces Si4465DY-T1-E3
Si4465ADY-T1-E3 Replaces Si4465DY-T1

ABSOLUTE MAXIMUM RATINGS (T_A = 25 °C, unless otherwise noted)					
Parameter		**Symbol**	**Si4465ADY**	**Si4465DY**	**Unit**
Drain-Source Voltage		V_{DS}	- 8	- 8	V
Gate-Source Voltage		V_{GS}	± 8	± 8	
Continuous Drain Current	T_A = 25 °C	I_D	- 13.7	- 14	A
	T_A = 70 °C		- 11	- 11	
Pulsed Drain Current		I_{DM}	- 40	- 40	
Continuous Source Current (MOSFET Diode Conduction)		I_S	- 2.5	- 2.1	
Power Dissipation	T_A = 25 °C	P_D	3.0	2.5	W
	T_A = 70 °C		1.95	1.6	
Operating Junction and Storage Temperature Range		T_j and T_{stg}	- 55 to 150	- 55 to 150	°C
Maximum Junction-to-Ambient		R_{thJA}	41	41	°C/W

SPECIFICATIONS (T_J = 25 °C, unless otherwise noted)									
Parameter		**Symbol**	**Si4465ADY**			**Si4465DY**			**Unit**
			Min	**Typ**	**Max**	**Min**	**Typ**	**Max**	
Static									
Gate-Threshold Voltage		$V_{GS(th)}$	- 0.45		- 1.0	- 0.45		- 1.0	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} = - 4.5 V	$I_{D(on)}$	- 20			- 20			A
Drain-Source On-Resistance	V_{GS} = - 4.5 V	$r_{DS(on)}$		0.0075	0.009		0.007	0.009	Ω
	V_{GS} = - 2.5 V			0.0092	0.011		0.009	0.011	
	V_{GS} = - 1.8 V			0.013	0.016		0.012	0.016	
Forward Transconductance		g_{fs}		58			60		S
Diode Forward Voltage		V_{SD}		- 0.57	- 1.2		- 0.7	- 1.2	V
Dynamic									
Total Charge		Q_g		55	85		80	120	nC
Gate-Source Charge		Q_{gs}		6			15		
Gate-Drain Charge		Q_{gd}		10			9		
Gate Resistance		R_g		2.5	3.8		3.3	5	Ω

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.