SiA913ADJ vs. SiA913DJ

Description: **Dual P-Channel, 12-V (D-S) MOSFET**
Package: **PowerPAK® SC-70**
Pin Out: **Identical**

Part Number Replacements: SiA913ADJ-T1-GE3 replaces SiA913DJ-T1-GE3

ABSOLUTE MAXIMUM RATINGS T_A = 25 °C, unless otherwise noted					
PARAMETER		**SYMBOL**	**SiA913ADJ**	**SiA913DJ**	**UNIT**
Drain-Source Voltage		V_{DS}	- 12	- 12	V
Gate-Source Voltage		V_{GS}	± 8	± 8	
Continuous Drain Current	T_A = 25 °C	I_D	- 4.3	- 4.3	A
	T_A = 70 °C		- 3.8	- 3.4	
Pulsed Drain Current		I_{DM}	- 15	- 10	
Continuous Source Current (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		R_{thJA}	65	65	°C/W

SPECIFICATIONS T_J = 25 °C, unless otherwise noted									
			SiA913ADJ			**SiA913DJ**			
PARAMETER		**SYMBOL**	**MIN.**	**TYP.**	**MAX.**	**MIN.**	**TYP.**	**MAX.**	**UNIT**
Static									
Gate-Threshold Voltage		$V_{GS(th)}$	- 0.4		- 1	- 0.4		- 1.0	V
Gate-Body Leakage		I_{GSS}			± 100			± 100	nA
Zero Gate Voltage Drain Current (25 °C)		I_{DSS}			- 1			- 1	µA
On-State Drain Current	V_{GS} = - 4.5 V	$I_{D(on)}$	- 10			- 8			A
Drain-Source On-Resistance	V_{GS} = - 4.5 V	$R_{DS(on)}$		0.050	0.061		0.058	0.070	Ω
	V_{GS} = - 10 V			0.066	0.081		0.082	0.100	
	V_{GS} = - 4.5 V			0.093	0.115		0.111	0.140	
Forward Transconductance		g_{fs}		11			9		S
Diode Forward Voltage		V_{SD}		- 0.85	- 1.2		- 0.85	- 1.2	V
Dynamic									
Total Gate Charge		Q_g		8.2	12.5		5	7.5	nC
Gate-Source Charge		Q_{gs}		1.2			0.8		
Gate-Drain Charge		Q_{gd}		2.8			1.4		
Gate Resistance		R_g		10			7		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.