Si5935CDC vs. Si5935DC

Description: **Dual P-Channel, 20-V (D-S) MOSFET**
Package: **1206-8 ChipFET®**
Pin Out: **Identical**

Part Number Replacements: Si5935CDC-T1-E3 replaces Si5935DC-T1-E3

ABSOLUTE MAXIMUM RATINGS T_A = 25 °C, unless otherwise noted					
PARAMETER		**SYMBOL**	**Si5935CDC**	**Si5935DC**	**UNIT**
Drain-Source Voltage		V_{DS}	- 20	- 20	V
Gate-Source Voltage		V_{GS}	± 8	± 8	
Continuous Drain Current	T_A = 25 °C	I_D	- 3.1	- 4.1	A
	T_A = 85 °C		- 2.5[a]	- 2.9	
Pulsed Drain Current		I_{DM}	- 10	- 15	
Continuous Source Current (MOSFET Diode Conduction)		I_S	- 1.7	- 1.8	
Power Dissipation	T_A = 25 °C	P_D	1.3	2.1	W
	T_A = 85 °C		0.8[a]	1.1	
Operating Junction and Storage Temperature Range		T_J and T_{stg}	- 55 to 150	- 55 to 150	°C
Maximum Junction-to-Ambient		R_{thJA}	95	60	°C/W

SPECIFICATIONS T_J = 25 °C, unless otherwise noted									
			Si5935CDC			**Si5935DC**			
PARAMETER		**SYMBOL**	**MIN.**	**TYP.**	**MAX.**	**MIN.**	**TYP.**	**MAX.**	**UNIT**
Static									
Gate-Threshold Voltage		$V_{GS(th)}$	- 0.4		- 1.0	- 0.4		- 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	$I_{D(on)}$	- 10			- 15			A
Drain-Source On-Resistance	V_{GS} = - 4.5 V	$R_{DS(on)}$		0.083	0.100		0.069	0.086	Ω
	V_{GS} = - 2.5 V			0.100	0.120		0.097	0.121	
	V_{GS} = - 1.8 V			0.130	0.156		0.137	0.171	
Forward Transconductance		g_{fs}		9.5			8		S
Diode Forward Voltage		V_{SD}		- 0.8	- 1.2		- 0.8	- 1.2	V
Dynamic									
Total Gate Charge		Q_g		6.2	9.3		5.5	8.5	nC
Gate-Source Charge		Q_{gs}		0.85			0.91		
Gate-Drain Charge		Q_{gd}		1.75			1.6		
Gate Resistance		R_g	1.22	6.1	12.2		NS		Ω

Note

a. T_A = 70 °C, not 85 °C.

NS denotes not specified on original datasheet.

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.