Si3993CDV vs. Si3993DV

Description: **Dual P-Channel, 30 V (D-S) MOSFET**
Package: **TSOP-6**
Pin Out: **Identical**

Part Number Replacements: Si3993CDV-T1-GE3 replaces Si3993DV-T1-GE3
Si3993CDV-T1-GE3 replaces Si3993DV-T1-E3

ABSOLUTE MAXIMUM RATINGS (T_A = 25 °C, unless otherwise noted)					
PARAMETER		**SYMBOL**	**Si3993CDV**	**Si3993DV**	**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	- 2.6	- 2.2	A
	T_A = 70 °C		- 2.1	- 1.7	
Pulsed Drain Current		I_{DM}	- 8	- 8	
Continuous Source Current (MOSFET Diode Conduction)		I_S	- 0.95	- 1.05	
Power Dissipation	T_A = 25 °C	P_D	1.14	1.15	W
	T_A = 70 °C		0.73	0.73	
Operating Junction and Storage Temperature Range		T_J and T_{stg}	- 55 to 150	- 55 to 150	°C
Maximum Junction-to-Ambient		R_{thJA}	110	110	°C/W

SPECIFICATIONS (T_J = 25 °C, unless otherwise noted)									
PARAMETER		**SYMBOL**	**Si3993CDV**			**Si3993DV**			**UNIT**
			MIN.	**TYP.**	**MAX.**	**MIN.**	**TYP.**	**MAX.**	
Static									
Gate-Threshold Voltage		$V_{GS(th)}$	- 1.2		2.2	- 1		- 3	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	$I_{D(on)}$	- 8			- 5			A
Drain-Source On-Resistance	V_{GS} = - 10 V	$R_{DS(on)}$		0.092	0.111		0.107	0.133	Ω
	V_{GS} = - 4.5 V			0.156	0.188		0.194	0.245	
Forward Transconductance		g_{fs}		5			4		S
Diode Forward Voltage		V_{SD}		- 0.85	- 1.2		- 0.82	- 1.10	V
Dynamic									
Total Gate Charge		Q_g		2.7	4		3.1	5	nC
Gate-Source Charge		Q_{gs}		0.94			1		
Gate-Drain Charge		Q_{gd}		1.3			1.6		
Gate Resistance		R_g	2	7	14		NS		Ω

Note
NS denotes not specified in original specification.

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.