Si3433CDV vs. Si3433BDV

Description: **P-Channel, 20-V (D-S) MOSFET**
Package: **TSOP-6**
Pin Out: **Identical**

Part Number Replacements: Si3433CDV-T1-E3 replaces Si3433BDV-T1-E3

ABSOLUTE MAXIMUM RATINGS T_A = 25 °C, unless otherwise noted					
PARAMETER		**SYMBOL**	**Si3433CDV**	**Si3433BDV**	**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	- 5.2	- 5.6	A
	T_A = 70 °C		- 4.2	- 4.1[a]	
Pulsed Drain Current		I_{DM}	- 20	- 20	
Continuous Source Current (MOSFET Diode Conduction)		I_S	- 1.3	- 1.7	
Power Dissipation	T_A = 25 °C	P_D	1.6	2.0	W
	T_A = 70 °C		1.0	1.0[a]	
Operating Junction and Storage Temperature Range		T_J and T_{stg}	- 55 to 150	- 55 to 150	°C
Maximum Junction-to-Ambient		R_{thJA}	80	60	°C/W

SPECIFICATIONS T_J = 25 °C, unless otherwise noted									
PARAMETER		**SYMBOL**	**Si3433CDV**			**Si3433BDV**			**UNIT**
			MIN.	**TYP.**	**MAX.**	**MIN.**	**TYP.**	**MAX.**	
Static									
Gate-Threshold Voltage		$V_{GS(th)}$	- 0.4		- 1.0	- 0.45		- 0.85	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	$R_{DS(on)}$		0.031	0.038		0.034	0.042	Ω
	V_{GS} = - 2.5 V			0.037	0.046		0.045	0.057	
	V_{GS} = - 1.8 V			0.046	0.060		0.060	0.080	
Forward Transconductance		g_{fs}		20			10		S
Diode Forward Voltage		V_{SD}		- 0.8	- 1.2		- 0.7	- 1.2	V
Dynamic									
Total Charge		Q_g		18	27		12	18	nC
Gate-Source Charge		Q_{gs}		2.1			1.7		
Gate-Drain Charge		Q_{gd}		4.8			3.5		
Gate Resistance		R_g		6			NS		Ω

Notes
NS denotes not specified in original datasheet
a. T_A = 85 °C.

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.