Si3441BDV vs. Si3441DV

Description: **P-Channel, 2.5 V (G-S) MOSFET**
Package: **TSOP-6**
Pin Out: **Identical**

Part Number Replacements:
Si3441BDV-T1 Replaces Si3441DV-T1
Si3441BDV-T1-E3 (Lead (Pb)-free version) Replaces Si3441DV-T1

ABSOLUTE MAXIMUM RATINGS T_A = 25 °C, unless otherwise noted

Parameter		Symbol	Si3441BDV	Si3441DV	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	- 2.9	- 3.3	A
	T_A = 70 °C		- 2.35	- 2.6	
Pulsed Drain Current		I_{DM}	- 16	- 20	
Continuous Source Current (MOSFET Diode Conduction)		I_S	- 1.0	- 1.6	
Power Dissipation	T_A = 25 °C	P_D	1.25	2.0	W
	T_A = 70 °C		0.8	1.28	
Operating Junction and Storage Temperature Range		T_j and T_{stg}	- 55 to 150	- 55 to 150	°C
Maximum Junction-to-Ambient		R_{thJA}	145	130	°C/W

SPECIFICATIONS T_J = 25 °C, unless otherwise noted

Parameter		Symbol	Si3441BDV			Si3441DV			Unit
			Min	Typ	Max	Min	Typ	Max	
Static									
Drain-Source Breakdown Voltage		$V_{(BR)DSS}$	- 20			- 20			V
Gate-Threshold Voltage		$V_{G(th)}$	- 0.45		- 0.85	- 0.45		- 0.95	
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			- 10			A
	V_{GS} = - 2.5 V		- 4			- 4			
Drain-Source On-Resistance	V_{GS} = - 4.5 V	$r_{DS(on)}$		0.070	0.090		0.068	0.100	Ω
	V_{GS} = - 2.5 V			0.098	0.130		0.100	0.135	
Forward Transconductance		g_{fs}		8.0			8.8		S
Diode Forward Voltage		V_{SD}		- 0.8	- 1.2		- 0.8	- 1.2	V
Dynamic									
Total Gate Charge		Q_g		5.2	8		8.6	14	nC
Gate-Source Charge		Q_{gs}		0.8			1.2		
Gate-Drain Charge		Q_{gd}		1.5			1.1		
Switching									
Turn-On Time		$t_{d(on)}$		15	25		15	50	ns
		t_r		55	85		40	60	
Turn-Off Time		$t_{d(off)}$		30	45		40	80	
		t_f		40	60		50	70	
Source-Drain Reverse Recovery Time		t_{rr}		50	80		50	80	

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.