Si3454CDV vs. Si3454ADV

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

Part Number Replacements: Si3454CDV-T1-E3 replaces Si3454ADV-T1-E3
Si3454CDV-T1-E3 replaces Si3454ADV-T1

ABSOLUTE MAXIMUM RATINGS T_A = 25 °C, unless otherwise noted					
PARAMETER		**SYMBOL**	**Si3454CDV**	**Si3454ADV**	**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	3.8	4.5	A
	T_A = 70 °C		3.1	3.6	
Pulsed Drain Current		I_{DM}	20	20	
Continuous Source Current (MOSFET Diode Conduction)		I_S	1.04	1.7	
Power Dissipation	T_A = 25 °C	P_D	1.25	2.0	W
	T_A = 70 °C		0.8	1.3	
Operating Junction and Storage Temperature Range		T_J and T_{stg}	- 55 to 150	- 55 to 150	°C
Maximum Junction-to-Ambient		R_{thJA}	100	62.5	°C/W

SPECIFICATIONS T_J = 25 °C, unless otherwise noted									
PARAMETER		**SYMBOL**	**Si3454CDV**			**Si3454ADV**			**UNIT**
			MIN.	**TYP.**	**MAX.**	**MIN.**	**TYP.**	**MAX.**	
Static									
Gate-Threshold Voltage		$V_{GS(th)}$	1		3	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	$I_{D(on)}$	30			15			A
Drain-Source On-Resistance	V_{GS} = 10 V	$R_{DS(on)}$		0.041	0.050		0.048	0.060	Ω
	V_{GS} = 4.5 V			0.066	0.079		0.070	0.085	
Forward Transconductance		g_{fs}		8			10		S
Diode Forward Voltage		V_{SD}		0.8	1.2		0.8	1.2	V
Dynamic									
Total Charge		Q_g		5.3	10.6		9	15	nC
Gate-Source Charge		Q_{gs}		1.2			2.5		
Gate-Drain Charge		Q_{gd}		0.8			1.5		
Gate Resistance		R_g	0.44	2.2	4.4	0.5		2.9	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.