Si6968BEDQ vs. Si6968EDQ-REVA

Description: **Dual N-Channel, 2.5 V (G-S) MOSFET Common Drain with ESD Protection**
Package: **TSSOP-8**
Pin Out: **Identical**

Part Number Replacements:
Si6968BEDQ-T1 Replaces Si6968EDQ-T1-REVA
Si6968BEDQ-T1-E3 (Lead (Pb)-free version) Replaces Si6968EDQ-T1-REVA

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

Parameter		Symbol	Si6968BEDQ	Si6968EDQ-REVA	Unit
Drain-Source Voltage		V_{DS}	20	20	V
Gate-Source Voltage		V_{GS}	± 12	± 12	
Continuous Drain Current	T_A = 25 °C	I_D	6.5	6.5	A
	T_A = 70 °C		5.5	5.5	
Pulsed Drain Current		I_{DM}	30	30	
Continuous Source Current (MOSFET Diode Conduction)		I_S	1.5	1.5	
Power Dissipation	T_A = 25 °C	P_D	1.5	1.5	W
	T_A = 70 °C		0.96	0.96	
Operating Junction and Storage Temperature Range		T_j and T_{stg}	- 55 to 150	- 55 to 150	°C
Maximum Junction-to-Ambient		R_{thJA}	83	83	°C/W

SPECIFICATIONS T_J = 25 °C, unless otherwise noted

Parameter		Symbol	Si6968BEDQ			Si6968EDQ-REVA			Unit
			Min	Typ	Max	Min	Typ	Max	
Static									
Gate-Threshold Voltage		$V_{GS(th)}$	0.6		1.6	0.6			V
Gate-Body Leakage		I_{GSS}			± 200			± 200	nA
Zero Gate Voltage Drain Current		I_{DSS}			1			1	µA
On-State Drain Current	V_{GS} = 10 V	$I_{D(on)}$	30			30			A
Drain-Source On-Resistance	V_{GS} = 4.5 V	$r_{DS(on)}$		0.0165	0.022		0.018	0.022	Ω
	V_{GS} = 2.5 V			0.023	0.030		0.024	0.030	
Forward Transconductance		g_{fs}		30			24		S
Diode Forward Voltage		V_{SD}		0.71	1.2		0.71	1.2	V
Dynamic									
Total Gate Charge		Q_g		12	18		16	25	nC
Gate-Source Charge		Q_{gs}		2.2			2.5		
Gate-Drain Charge		Q_{gd}		3.6			5.5		
Switching									
Turn-On Time		$t_{d(on)}$		245	365		140	210	ns
		t_r		330	495		230	350	
Turn-Off Time		$t_{d(off)}$		860	1300		600	900	
		t_f		510	765		450	700	

NS denotes parameter not specified in original data sheet.

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.