Si4804CDY vs. Si4804BDY

Description: **Dual N-Channel, 30-V (D-S) MOSFET**
Package: **SO-8**
Pin Out: **Identical**

Part Number Replacements: Si4804CDY-T1-GE3 replaces Si4804BDY-T1-E3
Si4804CDY-T1-GE3 replaces Si4804BDY-T1-E3

ABSOLUTE MAXIMUM RATINGS T_A = 25 °C, unless otherwise noted					
PARAMETER		**SYMBOL**	**Si4804CDY**	**Si4804BDY**	**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	7.1	7.5	A
	T_A = 70 °C		5.5	6.0	
Pulsed Drain Current		I_{DM}	30	30	
Continuous Source Current (MOSFET Diode Conduction)		I_S	1.8	1.7	
Power Dissipation	T_A = 25 °C	P_D	2.0	2.0	W
	T_A = 70 °C		1.28	1.3	
Operating Junction and Storage Temperature Range		T_J and T_{stg}	- 55 to 150	- 55 to 150	°C
Maximum Junction-to-Ambient (MOSFET)		R_{thJA}	62.5	62.5	°C/W

SPECIFICATIONS T_J = 25 °C, unless otherwise noted									
			Si4804CDY			**Si4804BDY**			
PARAMETER		**SYMBOL**	**MIN.**	**TYP.**	**MAX.**	**MIN.**	**TYP.**	**MAX.**	**UNIT**
Static									
Gate-Threshold Voltage		$V_{GS(th)}$	1.2		2.4	0.8		3.0	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	$I_{D(on)}$	20			20			A
Drain-Source On-Resistance	V_{GS} = 10 V	$R_{DS(on)}$		0.018	0.022		0.017	0.022	Ω
	V_{GS} = 4.5 V			0.022	0.027		0.024	0.030	
Forward Transconductance		g_{fs}		20			19		S
Diode Forward Voltage		V_{SD}		0.77	1.1		0.75	1.2	V
Dynamic									
Total Gate Charge		Q_g		7.0	10.5		7.0	11	nC
Gate-Source Charge		Q_{gs}		2.3			2.9		
Gate-Drain Charge		Q_{gd}		2.2			2.5		
Gate Resistance		R_g	0.4	1.9	3.8	0.5	1.5	2.6	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.