Si9926CDY vs. Si9926BDY

Description: **Dual N-Channel, 20-V (D-S) MOSFET**
Package: **SO-8**
Pin Out: **Identical**

Part Number Replacements: Si9926CDY-T1-GE3 replaces Si9926BDY-T1-GE3
Si9926CDY-T1-E3 or Si9926CDY-T1-GE3 replaces Si9926BDY-T1-E3
Si9926CDY-T1-E3 or Si9926CDY-T1-GE3 replaces Si9926BDY-T1

ABSOLUTE MAXIMUM RATINGS T_A = 25 °C, unless otherwise noted					
PARAMETER		**SYMBOL**	**Si9926CDY**	**Si9926BDY**	**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	8	8.2	A
	T_A = 70 °C		6.7	6.5	
Pulsed Drain Current		I_{DM}	30	30	
Continuous Source Current (MOSFET Diode Conduction)		I_S	1.7	1.7	
Power Dissipation	T_A = 25 °C	P_D	2.0	2.0	W
	T_A = 70 °C		1.3	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}	62.5	62.5	°C/W

SPECIFICATIONS T_J = 25 °C, unless otherwise noted									
			Si9926CDY			**Si9926BDY**			
PARAMETER		**SYMBOL**	**MIN.**	**TYP.**	**MAX.**	**MIN.**	**TYP.**	**MAX.**	**UNIT**
Static									
Gate-Threshold Voltage		$V_{GS(th)}$	0.6		1.5	0.6		1.5	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	$I_{D(on)}$	30			30			A
Drain-Source On-Resistance	V_{GS} = 4.5 V	$R_{DS(on)}$		0.015	0.018		0.016	0.020	Ω
	V_{GS} = 2.5 V			0.017	0.022		0.024	0.030	
Forward Transconductance		g_{fs}		45			29		S
Diode Forward Voltage		V_{SD}		0.8	1.2		0.8	1.2	V
Dynamic									
Total Gate Charge		Q_g		10	15		11	20	nC
Gate-Source Charge		Q_{gs}		2.5			2.5		
Gate-Drain Charge		Q_{gd}		1.7			3.2		
Gate Resistance		R_g		2.4			NS		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.