Si5475DDC vs. Si5475BDC

Description: **P-Channel, 12-V (D-S) MOSFET**
Package: **1206-8 ChipFET®**
Pin Out: **Identical**

Part Number Replacements: Si5475DDC-T1-GE3 replaces Si5475BDC-T1-E3

ABSOLUTE MAXIMUM RATINGS T_A = 25 °C, unless otherwise noted					
PARAMETER		**SYMBOL**	**Si5475DDC**	**Si5475BDC**	**UNIT**
Drain-Source Voltage		V_{DS}	- 12	- 12	V
Gate-Source Voltage		V_{GS}	± 8	± 8	
Continuous Drain Current	T_A = 25 °C	I_D	- 6	- 7.7	A
	T_A = 70 °C		- 5.6	- 6.2	
Pulsed Drain Current		I_{DM}	- 20	- 20	
Continuous Source Current (MOSFET Diode Conduction)		I_S	- 1.9	- 1.3	
Power Dissipation	T_A = 25 °C	P_D	2.3	2.5	W
	T_A = 70 °C		1.2	1.6	
Operating Junction and Storage Temperature Range		T_J and T_{stg}	- 55 to 150	- 55 to 150	°C
Maximum Junction-to-Ambient		R_{thJA}	55	50	°C/W

SPECIFICATIONS T_J = 25 °C, unless otherwise noted									
PARAMETER		**SYMBOL**	**Si5475DDC**			**Si5475BDC**			**UNIT**
			MIN.	**TYP.**	**MAX.**	**MIN.**	**TYP.**	**MAX.**	
Static									
Gate-Threshold Voltage		$V_{GS(th)}$	- 0.4		- 1.0	- 0.45		- 1.0	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} = - 4.5 V	$I_{D(on)}$	- 20			- 20			A
Drain-Source On-Resistance	V_{GS} = - 4.5 V	$R_{DS(on)}$		0.026	0.032		0.023	0.028	Ω
	V_{GS} = - 2.5 V			0.032	0.040		0.032	0.039	
	V_{GS} = - 1.8 V			0.041	0.052		0.044	0.054	
Forward Transconductance		g_{fs}		21			22		S
Diode Forward Voltage		V_{SD}		- 0.8	- 1.2		- 0.9	- 1.2	V
Dynamic									
Total Charge		Q_g		20	30		15.5	24	nC
Gate-Source Charge		Q_{gs}		2.5			2.1		
Gate-Drain Charge		Q_{gd}		5.5			4.0		
Gate Resistance		R_g		4.1			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.