Si6467BDQ vs. Si6467DQ

Description: **P-Channel, 1.8 V (G-S) MOSFET**
Package: **TSSOP-8**
Pin Out: **Identical**

Part Number Replacements:
Si6467BDQ-T1 Replaces Si6467DQ-T1
Si6467BDQ-T1-E3 (Lead (Pb)-free version) Replaces Si6467DQ-T1

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

Parameter		Symbol	Si6467BDQ	Si6467DQ	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	- 8.0	- 8.0	A
	T_A = 70 °C		- 6.5	- 6.5	
Pulsed Drain Current		I_{DM}	- 30	- 30	
Continuous Source Current (MOSFET Diode Conduction)		I_S	- 1.35	- 1.5	
Power Dissipation	T_A = 25 °C	P_D	1.5	1.5	W
	T_A = 70 °C		1.0	1.0	
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	Si6467BDQ			Si6467DQ			Unit
			Min	Typ	Max	Min	Typ	Max	
Static									
Gate-Threshold Voltage		$V_{G(th)}$	- 0.45		- 0.75	- 0.45			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	$r_{DS(on)}$		0.0100	0.0125		0.0105	0.014	Ω
	V_{GS} = - 2.5 V			0.0125	0.0155		0.014	0.019	
	V_{GS} = - 1.8 V			0.016	0.020		0.020	0.027	
Forward Transconductance		g_{fs}		44			34		S
Diode Forward Voltage		V_{SD}		- 0.56	- 1.1		- 0.65	- 1.1	V
Dynamic									
Total Gate Charge		Q_g		46	70		49	80	nC
Gate-Source Charge		Q_{gs}		5			9		
Gate-Drain Charge		Q_{gd}		15.5			6.5		
Switching									
Turn-On Time		$t_{d(on)}$		45	70		40	70	ns
		t_r		85	130		50	100	
Turn-Off Time		$t_{d(off)}$		220	400		220	400	
		t_f		155	235		105	200	
Source-Drain Reverse Recovery Time		t_{rr}		140	210		70	120	

NS denotes parameter not specified.

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.