DP3N10

N-Channel 100V(D.S)MOSFT

MOSFET PRODUCT SUMMARY			
V_{DS} (V)	$R_{DS(on)}$ (Ω) Max.	I_D (A)[a]	Q_g (Typ.)
100	0.126 at V_{GS} = 10 V	3.1	2.9 nC
	0.134 at V_{GS} = 6 V	2.9	
	0.139 at V_{GS} = 4.5 V	2.6	

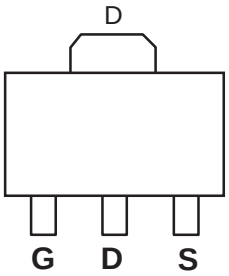
FEATURES

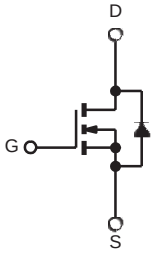
- TrenchFET® Power MOSFET
- 100 % R_g and UIS Tested
- Material categorization:

Pb-free
RoHS COMPLIANT
HALOGEN FREE

APPLICATIONS

- DC/DC Converters / Boost Converters
- Load Switch
- LED Backlighting in LCD TVs
- Power Management for Mobile Computing





N-Channel MOSFET

ABSOLUTE MAXIMUM RATINGS (T_A = 25 °C, unless otherwise noted)				
Parameter		**Symbol**	**Limit**	**Unit**
Drain-Source Voltage		V_{DS}	100	V
Gate-Source Voltage		V_{GS}	± 20	
Continuous Drain Current (T_J = 150 °C)	T_C = 25 °C	I_D	3.1	A
	T_C = 70 °C		2.5	
	T_A = 25 °C		2.2[b,c]	
	T_A = 70 °C		1.8[b,c]	
Pulsed Drain Current (t = 300 µs)		I_{DM}	8	
Continuous Source-Drain Diode Current	T_C = 25 °C	I_S	2.1	
	T_A = 25 °C		1[b, c]	
Single Pulse Avalanche Current	L = 0.1 mH	I_{AS}	3	
Single Pulse Avalanche Energy		E_{AS}	0.45	mJ
Maximum Power Dissipation	T_C = 25 °C	P_D	2.5	W
	T_C = 70 °C		1.6	
	T_A = 25 °C		1.25[b, c]	
	T_A = 70 °C		0.8[b, c]	
Operating Junction and Storage Temperature Range		T_J, T_{stg}	- 55 to 150	°C

THERMAL RESISTANCE RATINGS					
Parameter		**Symbol**	**Typical**	**Maximum**	**Unit**
Maximum Junction-to-Ambient[b, d]	≤ 5 s	R_{thJA}	75	100	°C/W
Maximum Junction-to-Foot (Drain)	Steady State	R_{thJF}	40	50	

Notes:
a. Based on T_C = 25 °C.
b. Surface mounted on 1" x 1" FR4 board.
c. t = 5 s.
d. Maximum under steady state conditions is 166 °C/W.