



ACE127904B

N-Channel Enhancement Mode Power MOSFET

Description

- Synchronous buck converter
- High power density DC/DC
- Motor drive control
- Battery management
- Load switch

Features

- $V_{DS}=30V$
- $I_D=64.5A$
- $R_{DS(ON)}@V_{GS}=10V$, TYP $3.6m\Omega$
- $R_{DS(ON)}@V_{GS}=4.5V$, TYP $4.6m\Omega$

Absolute Maximum Ratings

Parameter		Symbol	Ratings	Units
Drain-Source Voltage		V_{DSS}	30	V
Gate-Source Voltage		V_{GSS}	± 20	V
Drain Current (Continuous) ^{*AC}	$T_C=25^\circ C$	I_D	64.5	A
	$T_C=70^\circ C$		51.6	
Drain Current (Pulsed) ^{*B}		I_{DM}	240	A
Power Dissipation	$T_C=25^\circ C$	P_D	31.2	W
Operating temperature / storage temperature		T_J/T_{STG}	-55~150	$^\circ C$

A: The value of $R_{\theta JA}$ is measured with the device mounted on 1in² FR-4 board with 2oz. Copper, in a still air environment with $T_A=25^\circ C$. The value in any given application depends on the user's specific board design.

B: Repetitive rating, pulse width limited by junction temperature.

C: The current rating is based on the $t \leq 10s$ junction to ambient thermal resistance rating, Package Limited 50A...

Thermal Resistance Ratings

Parameter		Symbol	Maximum	Units
Maximum Junction-to-Ambient	$t \leq 10 s$	R_{thJA}	35	$^\circ C/W$
Maximum Junction-to-Lead	Steady State	R_{thJC}	4	



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Notes

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2. A critical component is any component of a life support device or system whose failure to perform can be reasonably expected to cause the failure of the life support device or system, or to affect its safety or effectiveness.

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