ACE1S30N15B

N-Channel Enhancement Mode Power MOSFET

General Description

- DC/DC power supplies
- Industrial motor drives

Features

- V_{DS}=150V
- I_D=22A
- $R_{DS(ON)}$@V_{GS}=10V, TYP 43mΩ
- $R_{DS(ON)}$@V_{GS}=6V, TYP 48mΩ

Absolute Maximum Ratings

At T_A=25°C unless otherwise noted

Parameter		Symbol	Ratings	Units
Drain-Source Voltage		V_{DSS}	150	V
Gate-Source Voltage		V_{GSS}	±25	V
Drain Current (Continuous) *AB	T_C=25°C	I_D	22	A
	T_C=70°C		17.6	
Drain Current (Pulse) *C		I_{DM}	88	A
Power Dissipation	T_C=25°C	P_D	69.4	W
Operating temperature / storage temperature		T_J/T_{STG}	-55 to 150	°C

Thermal Resistance Ratings

Parameter		Symbol	Typ	Max	Units
Maximum Junction-to-Ambient	t ≤ 10 s	R_{thJA}	19	24	°C/W
	Steady State	R_{thJA}	52	65	
Maximum Junction-to-Case (Drain)	Steady State	R_{thJC}	1.5	1.8	

Note:

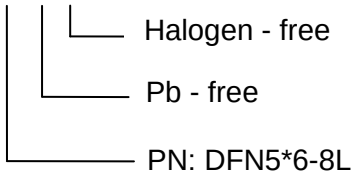
A: The value of $R_{\theta JA}$ is measured with the device mounted on 1in^2 FR-4 board with 2oz. Copper, in a still air environment with T_A=25°C. The value in any given application depends on the user's specific board design.

B: The current rating is based on the t ≤ 10s junction to ambient thermal resistance rating.

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

Ordering Information

ACE1S30N15B XX + H



Notes

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1. Life support devices or systems are devices or systems which, (a) are intended for surgical implant into the body, or (b) support or sustain life, and shoes failure to perform when properly used in accordance with instructions for use provided in the labeling, can be reasonably expected to result in a significant injury to the user.
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.