



ACE120N10LA

N-channel Enhanced Power MOSFET

Description

ACE120N10LA, the N-channel Enhanced Power MOSFETs, is obtained by advanced double trench technology which reduce the conduction loss, and improve switching performance. This is suitable device for LED backlighting and high-speed switching applications.

Features

- Fast Switching
- Low On-Resistance
- Low Gate Charge
- Low Reverse transfer capacitances
- High avalanche ruggedness
- RoHS product

Application

- Switching applications
- LED backlighting

Absolute Maximum Ratings At $T_C=25^\circ\text{C}$, unless otherwise specified

Parameter	Symbol	Max	Unit
Drain-Source Voltage	V_{DSS}	100	V
Continuous Drain Current, Silicon Limited	I_D	30	A
Continuous Drain Current, TO-252 Package Limited		60	A
Continuous Drain Current, PDFN 5x6 Package Limited		35	A
Continuous Drain Current @ $T_C=100^\circ\text{C}$, Silicon Limited		19	A
Pulsed Drain Current	I_{DM} Note1	120	A
Gate-Source Voltage	V_{GS}	± 20	V
Avalanche Energy	E_{AS} Note2	56	mJ
Power Dissipation	P_D	33.7	W
Derating Factor above 25°C		0.27	$W/^\circ\text{C}$
Operating Junction and Storage Temperature Range	T_J , T_{stg}	150 , -55 to 150	$^\circ\text{C}$
Maximum Temperature for Soldering	T_L	260	$^\circ\text{C}$
thermal resistance, Junction-Case	$R_{\theta JC}$	3.7	$^\circ\text{C/W}$
thermal resistance, Junction-Ambient	$R_{\theta JA}$	75	$^\circ\text{C/W}$

Note1 : Repetitive Rating : Pulse width limited by maximum junction temperature

Note2 : $L=0.5\text{mH}$, $I_{as}=15\text{A}$, Start $T_J = 25^\circ\text{C}$

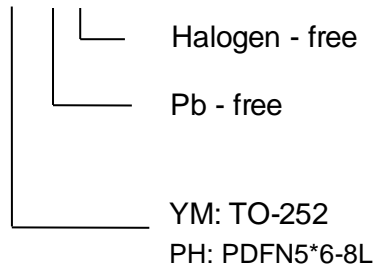


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Ordering information

ACE120N10LA XX + H





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Notes

ACE does not assume any responsibility for use as critical components in life support devices or systems without the express written approval of the president and general counsel of ACE Technology Co., LTD. As sued herein:

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.

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