



ACE13022A

N-Channel Enhancement Mode MOSFET

Description

The ACE13022A is the N-Channel enhancement mode power field effect transistors are produced using high cell density, DMOS trench technology. This high-density process is especially tailored to minimize on-state resistance and provide superior switching performance. These devices are particularly suited for low voltage applications such as notebook computer power management and other battery powered circuits where high-side switching, low in-line power loss, and resistance to transients are needed.

Features

- 30V/0.95A, $R_{DS(ON)}=400m\Omega@V_{GS}=4.5V$
- 30V/0.75A, $R_{DS(ON)}=500m\Omega@V_{GS}=2.5V$
- 30V/0.65A, $R_{DS(ON)}=650m\Omega@V_{GS}=1.8V$
- Super high-density cell design for extremely low $R_{DS(ON)}$
- Exceptional on-resistance and maximum DC current capability

Applications

- Drivers: Relays/Solenoids/Lamps/Hammers
- Power Supply Converter Circuits
- Load/Power Switching Cell Phones, Pagers

Absolute Maximum Ratings

($T_A=25^\circ C$ Unless otherwise noted)

Parameter	Symbol	Typical	Unit	
Drain-Source Voltage	V_{DSS}	30	V	
Gate-Source Voltage	V_{GSS}	± 12	V	
Continuous Drain Current ($T_J=150^\circ C$)	$T_A=25^\circ C$	1.2	A	
	$T_A=125^\circ C$	1.0		
Pulsed Drain Current(*)	I_{DM}	1.0	A	
Thermal Resistance-Junction to Ambient	$R_{\theta JA}$	375	$^\circ C/W$	
Power Dissipation	$T_A=25^\circ C$	P_D	1.35	A
Operating Junction Temperature	T_J	-55~150	W	
Storage Temperature Range	T_{STG}	-55~150	$^\circ C$	

(*) Pulse width limited by safe operating area



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Ordering information

ACE13022A XX + H

- └─ Halogen - free
- └─ Pb - free
- └─ NF: DFN3 1.0*0.6



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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 used 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 whose 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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