



# ACE2320M

## N-Channel 20-V MOSFET

### Description

ACE2320M uses advanced trench technology to provide excellent  $R_{DS(ON)}$ .

This device particularly suits for low voltage application such as power management of desktop computer or notebook computer power management, DC/DC converter.

### Features

- Low  $r_{DS(on)}$  provides higher efficiency and extends battery life
- Low thermal impedance copper leadframe SOT-23 saves board space
- Fast switching speed
- High performance trench technology

### Applications

- White LED boost converters
- Automotive Systems
- Industrial DC/DC Conversion Circuits

### Absolute Maximum Ratings

Parameter		Symbol	Limit	Units
Drain-Source Voltage		$V_{DS}$	20	V
Gate-Source Voltage		$V_{GS}$	$\pm 8$	V
Continuous Drain Current <sup>a</sup>	$T_A=25^\circ\text{C}$	$I_D$	7.0	A
	$T_A=70^\circ\text{C}$		5.5	
Pulsed Drain Current <sup>b</sup>		$I_{DM}$	20	A
Continuous Source Current (Diode Conduction) <sup>a</sup>		$I_S$	1.9	A
Power Dissipation <sup>a</sup>	$T_A=25^\circ\text{C}$	$P_D$	1.3	W
	$T_A=70^\circ\text{C}$		0.8	
Operating temperature / storage temperature		$T_J/T_{STG}$	-55~150	$^\circ\text{C}$

### THERMAL RESISTANCE RATINGS

Parameter		Symbol	Maximum	Units
Maximum Junction-to-Ambient <sup>a</sup>	$t \leq 10 \text{ sec}$	$R_{\theta JA}$	100	$^\circ\text{C/W}$
	Steady State		166	

#### Notes

a. Surface Mounted on 1" x 1" FR4 Board.

b. Pulse width limited by maximum junction temperature

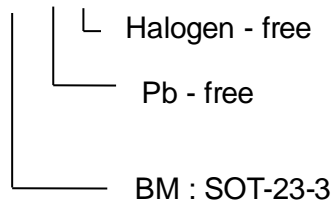


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### Ordering information

ACE2320M BM + 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 Electronics 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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