



ACE17440M

N-Channel 40-V (D-S) MOSFET

Features

- Low $r_{DS(on)}$ trench technology
- Low thermal impedance
- Fast switching speed

PRODUCT SUMMARY		
V_{DS} (V)	$r_{DS(on)}$ (m Ω)	I_D (A)
40	15 @ $V_{GS} = 10V$	15
	18 @ $V_{GS} = 4.5V$	14

Applications

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

Absolute Maximum Ratings

Parameter	Symbol	Limit	Units
Drain-Source Voltage	V_{DS}	40	V
Gate-Source Voltage	V_{GS}	± 20	V
Continuous Drain Current ^a	I_D	$T_A=25^\circ C$	15
		$T_A=70^\circ C$	12
Pulse Drain Current ^b	I_{DM}	50	A
Continuous Drain Current (Diode Continuous) ^a	I_S	6.4	A
Power Dissipation ^a	P_D	$T_A=25^\circ C$	5
		$T_A=70^\circ C$	3.2
Operating Junction and Storage Temperature Range	T_J, T_{STG}	-55 to 150	$^\circ C$

Parameter	Symbol	Maximum	Units
Maximum Junction-to-Ambient ^a	$R_{\theta JA}$	$t \leq 10sec$	25
		Steady State	65

Notes

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

b. Pulse width limited by maximum junction temperature



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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 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.