N-Channel 100-V (D-S) MOSFET

GENERAL DESCRIPTION

The ME15N10 is the N-Channel logic enhancement mode power field effect transistors, using high cell density, DMOS trench technology. This high density process is especially tailored to minimize on state resistance. These devices are particularly suited for low voltage application such as cellular phone, notebook computer power management and other battery powered circuits, and low in-line power loss that are needed in a very small outline surface mount package.

FEATURES

- $R_{DS(ON)} \leqq 100m\Omega$@VGS=10V
- Super high density cell design for extremely low $R_{DS(ON)}$
- Exceptional on-resistance and maximum DC current capability

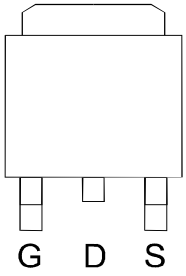
APPLICATIONS

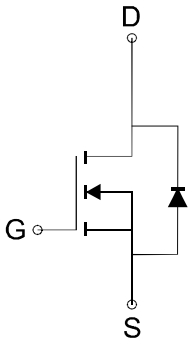
- Power Management in Note book
- DC/DC Converter
- Load Switch
- LCD Display inverter

PIN CONFIGURATION

(TO-252-3L)

Top View





N-Channel MOSFET

Ordering Information: ME15N10 (Pb-free)

ME15N10-G (Green product-Halogen free)

Absolute Maximum Ratings (T_A=25℃ Unless Otherwise Noted)

Parameter		Symbol	Rating	Unit
Drain-Source Voltage		V_{DSS}	100	V
Gate-Source Voltage		V_{GSS}	±20	V
Continuous Drain Current(T_j=150℃)	T_C=25℃	I_D	14.7	A
	T_C=70℃		13.6	
Pulsed Drain Current		I_{DM}	59	A
Maximum Power Dissipation	T_C=25℃	P_D	34.7	W
	T_C=70℃		22.2	
Operating Junction Temperature		T_J	-55 to 150	℃
Thermal Resistance-Junction to Case *		$R_{\theta JC}$	3.6	℃/W

* The device mounted on 1in^2 FR4 board with 2 oz copper