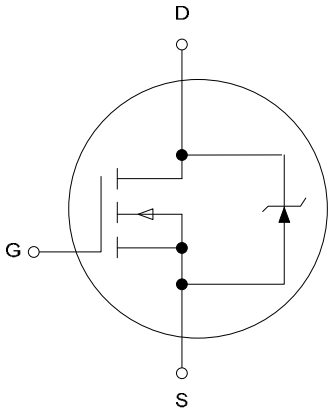
MTD6N15:
Power Field Effect Transistor DPAK for Surface Mount

Product Feature Sheet

Features

- Silicon gate for fast switching speeds
- Low $R_{DS(on)}$ — 0.3 Ω Max
- Rugged — SOA is power dissipation limited
- Source–to–drain diode characterized for use with inductive loads
- Low drive requirement — $V_{GS(th)}$ = 4.0 V Max
- Surface mount package on 16 mm tape

N-Channel Enhancement-Mode Silicon Gate



Ordering Information

Device	Package
MTD6N15	DPAK
MTD6N15-1	DPAK Straight Lead
MTD6N15T4	DPAK

Device Overview

This TMOS Power FET is designed for high speed, low loss power switching applications such as switching regulators, converters, solenoid and relay drivers

Absolute Maximum Ratings:

Rating	Symbol	Value	Unit
Drain - Source Voltage	V_{DSS}	150	Vdc
Drain - Gate Voltage (R_{GS} = 1.0 MΩ)	V_{DGR}	150	Vdc
Gate - Source Voltage - Continouous ($t_p \leq 50$ µs)	V_{GS}	± 20	Vdc
Gate - Source Voltage - Non-Repetitive ($t_p \leq 50$ µs)	V_{GSM}	± 40	Vpk
Drain Current - Continuous	I_D	6.0	Adc
Drain Current - Pulsed	I_{DM}	20	Adc
Total Power Dissipation @ Tc = 25 °C Derate Above 25°C	P_D	20 0.16	Watts W/°C
Total Power Dissipation @ T_A = 25 °C (1) Derate Above 25°C (Note 1)	P_D	1.25 0.01	Watts W/°C
Total Power Dissipation @ T_A = 25 °C (1) Derate Above 25 °C (Note 2)	P_D	1.75 0.0014	Watts W/°C
Operating and Storage Junction Temperature Range	T_J, T_{stg}	-65 °C to +150 °C	