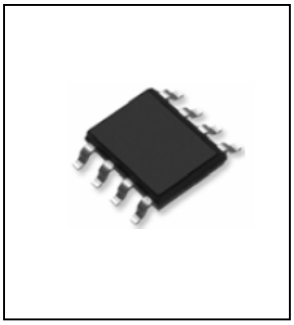
# P-Channel Enhancement Mode Power MOSFET

## Description

The PN4953 uses advanced trench technology to provide excellent $R_{DS(ON)}$, low gate charge and operation with gate voltages as low as 4.5V. This device is suitable for use as a load switch or in PWM applications.

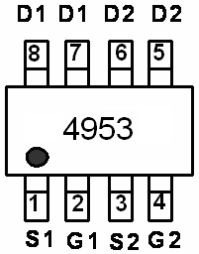
PN4953



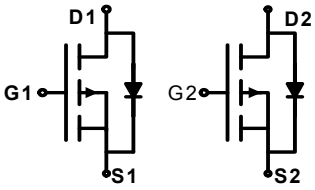
SOP-8 top view

## General Features

- $V_{DS}$ = -30V,$I_D$ = -5.1A
  $R_{DS(ON)}$ < 105mΩ @ $V_{GS}$=-4.5V
  $R_{DS(ON)}$ < 55mΩ @ $V_{GS}$=-10V
- High Power and current handing capability
- Lead free product is acquired
- Surface Mount Package




pin assignment




Schematic diagram

## Application

- PWM applications
- Load switch
- Power management

## Absolute Maximum Ratings ($T_A$=25℃unless otherwise noted)

| Parameter | Symbol | Limit | Unit |
|---|---|---|---|
| Drain-Source Voltage | $V_{DS}$ | -30 | V |
| Gate-Source Voltage | $V_{GS}$ | ±20 | V |
| Drain Current-Continuous | $I_D$ | -5.1 | A |
| Drain Current-Pulsed (Note 1) | $I_{DM}$ | -20 | A |
| Maximum Power Dissipation | $P_D$ | 2 | W |
| Operating Junction and Storage Temperature Range | $T_J$,$T_{STG}$ | -55 To 150 | ℃ |

## Thermal Characteristic

| | | | |
|---|---|---|---|
| Thermal Resistance,Junction-to-Ambient (Note 2) | $R_{\theta JA}$ | 50 | ℃/W |

## Electrical Characteristics ($T_A$=25℃unless otherwise noted)

| Parameter | Symbol | Condition | Min | Typ | Max | Unit |
|---|---|---|---|---|---|---|
| **Off Characteristics** | | | | | | |
| Drain-Source Breakdown Voltage | $BV_{DSS}$ | $V_{GS}$=0V $I_D$=-250μA | -30 | -33 | - | V |
| Zero Gate Voltage Drain Current | $I_{DSS}$ | $V_{DS}$=-24V,$V_{GS}$=0V | - | - | -1 | μA |