

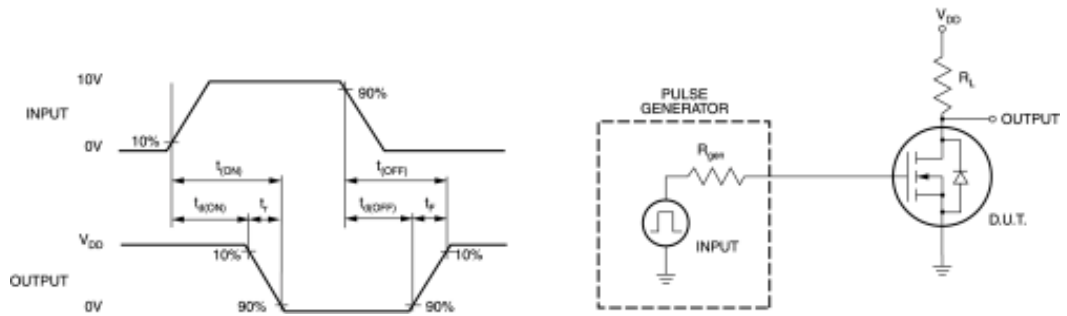
Product Summary Sheet

TN2640 N-Channel Enhancement-Mode DMOS FET

Low Threshold DMOS Technology

Applications

- ◆ DC-DC converters
- ◆ Solid state relays
- ◆ Ultrasound pulsers
- ◆ Telecom switches
- ◆ Photo voltaic drivers
- ◆ Analog switches



Switching Waveforms and Test Circuit

Product Overview:

TN2640K4 N-Channel Enhancement-Mode DMOS FET. The device features fast switching speeds, low parasitic capacitances and a low gate threshold for ease of driving the FET. It's D-Pak package gives designers the flexibility to use the device in a wide range of power switching and amplifying applications. It has a high breakdown voltage (400V), a low on-resistance (5.0W) and a low input capacitance (225pF) for fast switching applications. Adding these features into the D-Pak package increases the power dissipation capability to 2.5W in small footprints utilizing surface mount technology. It's low input and output leakage feature improves standby power dissipation while minimizing signal attenuation.

Features:

Low threshold — 2.0V max.

High input impedance

Low input capacitance

Fast switching speeds

Low on resistance

Free from secondary breakdown compared to bipolar transistors

Low input and output leakage

Addition of D-Pak option

Benefits:

Can be operated directly from logic level input signals. Eliminates the need for a level translator.

Eliminates the need to supply DC current into the gate.

Improves overall efficiency.

Maximizes switching speed to help improve overall efficiency.

Improves overall efficiency

Maximizes efficiency, minimizes power dissipation. Improves overall reliability.

Improves measurement accuracy. Minimizes signal attenuation.

Increases the power dissipation capability for surface mount technology to 2.5W.

TN2640 N-Channel Enhancement-Mode DMOS FET

Electrical Specifications

| Device | BV_{DSS} / BV_{DGS} | $R_{DS(ON)}$ (max) | $V_{GS(th)}$ (max) | $I_{D(ON)}$ (min) |
|--------|-----------------------|-----------------------|-----------------------|----------------------|
| TN2640 | 400V | 5.0Ω | 2.0V | 2.0A |

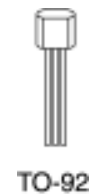
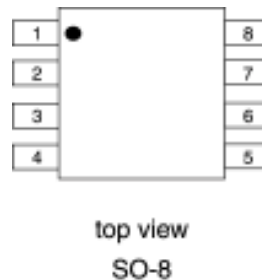
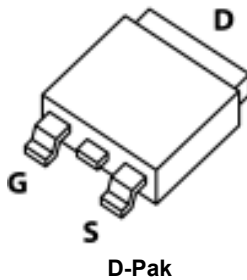
Availability

| Part Number | Package | Datasheet | Samples | Lead Time |
|-------------|---------|-----------|---------|---------------|
| TN2640N3 | TO-92 | Now | Now | Now |
| TN2640LG | SO-8 | Now | Now | Now |
| TN2640K4 | D-Pak | Now | Now | 4-5 weeks ARO |

Price List

| Part Number | 10K |
|-------------|--------------|
| TN2640K4 | \$ 0.79 each |

Package Information



Product Contact

If you have any questions regarding the TN2640 or samples, contact Supertex Applications at:

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Web: www.supertex.com

Supertex Sales:

Contact your local Supertex Sales Representative