

## 5 é / Descriptions

SOP-8 .&gt; // x ; m Í % ” MOS « | • 'ož

Complementary Enhancement MOSFET in a SOP-8 Plastic Package.

α<sup>a</sup> / Features

|   |  |
|---|--|
| N-channel                               | P-channel                                |
| $V_{DS}(V)=30V$                         | $V_{DS}(V)=-30V$                         |
| $I_D=7.2A$                              | $I_D=-7A$                                |
| $R_{DS(ON)}<25m\ \Omega\ (V_{GS}=10V)$  | $R_{DS(ON)}<25m\ \Omega\ (V_{GS}=-10V)$  |
| $R_{DS(ON)}<35m\ \Omega\ (V_{GS}=4.5V)$ | $R_{DS(ON)}<35m\ \Omega\ (V_{GS}=-4.5V)$ |
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## Đ ÷ / Applications

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These devices are well suited for high efficiency switching DC/DC converters and switch mode power supplies. And suitable for use as a load switch or in PWM applications.

## Ã W ] Ô • / Equivalent Circuit

## • Ů - æ / Pinning

PIN 1 y S1    PIN 2 y G1    PIN 3 y S2    PIN 4 y G2  
 PIN 5 y D2    PIN 6 y D2    PIN 7 y D1    PIN 8 y D1

## , M V / Marking

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See Marking Instructions.

Table 1 / Absolute Maximum Ratings (T<sub>A</sub>=25 °C ; )

| Parameter                              | Symbol                                 | Rating           |           | Unit |
|--|--|------------------|-----------|------|
|  |  | N-channel        | P-channel |      |
| Drain-Source Voltage                   | V <sub>DSS</sub>                       | ±30              |           | V    |
| Gate-Source Voltage                    | V <sub>GSS</sub>                       | ±20              |           | V    |
| Continuous Drain Current               | I <sub>D</sub> (T <sub>A</sub> =25 °C) | 7.2              | -7        | A    |
| Pulsed Drain Current                   | I <sub>DM</sub>                        | ±40              |           | A    |
| Power Dissipation                      | P <sub>D</sub> (T <sub>A</sub> =25 °C) | 2                |           | W    |
| Maximum Junction-to-Ambient            | R <sub>JA</sub>                        | t <sup>10s</sup> | 62.5      | /W   |
|  |  | Steady-State     | 90        | /W   |
| Maximum Junction-to-Lead               | R <sub>JL</sub>                        | Steady-State     | 40        | /W   |
| Junction and Storage Temperature Range | T <sub>J</sub> , T <sub>STG</sub>      | -55 to +150      |           |      |

| @ f<br>Parameter                  | Symbol       | Test Conditions              | Min | Typ | Max | Unit |
|-----------------------------------|--------------|------------------------------|-----|-----|-----|------|
| Drain-Source Breakdown Voltage    | $BV_{DSS}$   | $V_{GS}=0V$ $I_D=250 A$      | 30  | 32  |     | V    |
| Zero Gate Voltage Drain Current   | $I_{DSS}$    | $V_{DS}=30V$ $V_{GS}=0V$     |     |     | 1.0 | A    |
| Gate-Body leakage current         | $I_{GSS}$    | $V_{GS}=\pm 20V$ $V_{DS}=0V$ |     |     | 100 | nA   |
| Gate Threshold Voltage            | $V_{GS(th)}$ | $V_{DS}=V_{GS}$ $I_D=250 A$  | 1.0 | 1.7 | 2.5 | V    |
| Static Drain-Source On-Resistance | $R_{DS(on)}$ | $V_{GS}=10V$ $I_D=7.2A$      |     | 21  | 25  | m    |

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| @ f<br>Parameter                | Symbol       | Test Conditions              | Min  | Typ  | Max       | Unit |
|---------------------------------|--------------|------------------------------|------|------|-----------|------|
| Drain-Source Breakdown Voltage  | $BV_{DSS}$   | $V_{GS}=0V$ $I_D=-250$ A     | -30  | -33  |           | V    |
| Zero Gate Voltage Drain Current | $I_{DSS}$    | $V_{DS}=-24V$ $V_{GS}=0V$    |      |      | -1.0      | A    |
| Gate-Body leakage current       | $I_{GSS}$    | $V_{GS}=\pm 20V$ $V_{DS}=0V$ |      |      | $\pm 100$ | nA   |
| Gate Threshold Voltage          | $V_{GS(th)}$ | $V_{DS}=V_{GS}$ $I_D=-250$ A | -1.0 | -1.5 | -2.5      | V    |

Static Drain-Source  
On-Resistance

$R_{DS(on)}$

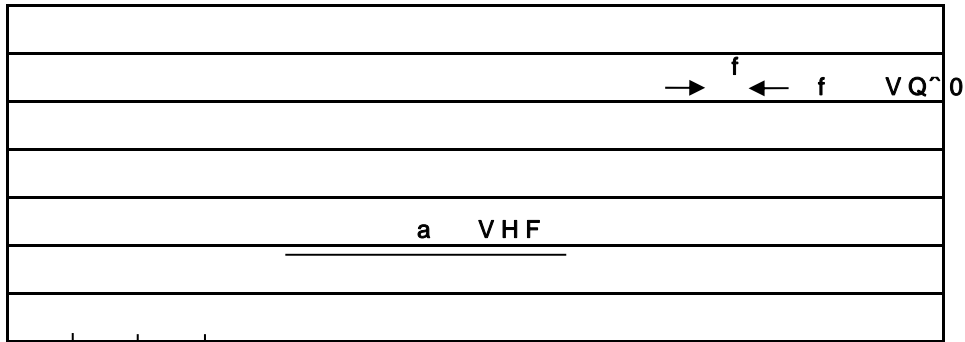
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Ø □ = ) ϕ / Package Dimensions

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<sup>a</sup>çy

1•Ä½“† 150½180 - kž• 60½90sec;

2o•Q›“† 245 r5 - kž•4 Ò 5 r0.5sec;

3o•D N ò i Ò 0 , † 2½10 - /sec.

Note:

1.Preheating:150~180 - , Time:60~90sec.

2.Peak Temp.:245 r5 - , Duration:5 r0.5sec.

3. Cooling Speed: 2~10 - /sec.

ÂD /Cã p ~ » ] / Resistance to Soldering Heat Test Conditions

“†y 260 r5 -

ž•y 10 r1 sec.

Temp.:260±5

Time:10±1 sec

G P á / Packaging SPEC.

2 & x / REEL

| Package Type<br>7>û~ E | Units ;>û iH      |                          |                       |                                |                        | Dimension ;>û p . (unit /mm³) |           |            |
|------------------------|-------------------|--------------------------|-----------------------|--------------------------------|------------------------|-------------------------------|-----------|------------|
|                        | Units/Reel<br>/.. | Reels/Inner Box<br>-- /- | Units/Inner Box<br>/- | Inner Boxes/Outer Box<br>- /1ç | Units/Outer Box<br>/1ç | Reel                          | Inner Box | Outer Boxç |
|                        |                   |                          |                       |                                |                        |                               |           |            |