

# isc N-Channel MOSFET Transistor

## **FDP8896**

#### FEATURES

- · With TO-220 packaging
- · Drain Source Voltage-
  - : V<sub>DSS</sub> ≥ 30V
- Static drain-source on-resistance:
  R<sub>DS</sub>(on) ≤ 59mΩ@V<sub>GS</sub>=10V
- · 100% avalanche tested
- Minimum Lot-to-Lot variations for robust device performance and reliable operation



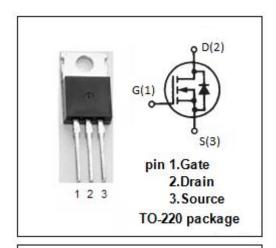
- Power supply
- · Switching applications

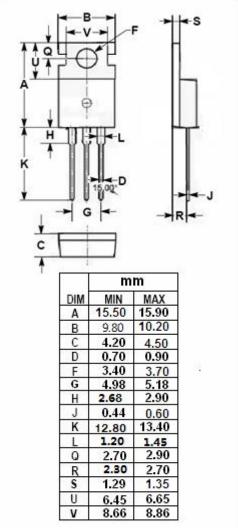
## • ABSOLUTE MAXIMUM RATINGS(Ta=25°C)

SYMBOL	PARAMETER	VALUE	UNIT
V <sub>DSS</sub>	Drain-Source Voltage	30	V
$V_{GSS}$	Gate-Source Voltage	±20	٧
I <sub>D</sub>	Drain Current-Continuous;@Tc=25℃	92	Α
$P_D$	Total Dissipation	80	W
Tj	Operating Junction Temperature	-55~175	$^{\circ}$
T <sub>stg</sub>	Storage Temperature	-55~175	$^{\circ}$

### • THERMAL CHARACTERISTICS

SYMBOL	PARAMETER	MAX	UNIT
Rth(ch-c)	Channel-to-case thermal resistance	1.88	°C/W







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#### **ELECTRICAL CHARACTERISTICS**

Tc=25℃ unless otherwise specified

SYMBOL	PARAMETER	CONDITIONS	MIN	TYP	MAX	UNIT
BV <sub>DSS</sub>	Drain-Source Breakdown Voltage	V <sub>GS</sub> =0V; I <sub>D</sub> = 250uA	30			V
V <sub>GS(th)</sub>	Gate Threshold Voltage	V <sub>DS</sub> =V <sub>GS</sub> ; I <sub>D</sub> =250uA	1.5		2.5	V
R <sub>DS(on)</sub>	Drain-Source On-Resistance	V <sub>GS</sub> = 10V; I <sub>D</sub> =35A			59	mΩ
I <sub>GSS</sub>	Gate-Source Leakage Current	$V_{GS}$ = $\pm 20V; V_{DS}$ = $0V$			±100	nA
I <sub>DSS</sub>	Drain-Source Leakage Current	V <sub>DS</sub> = 24V; V <sub>GS</sub> = 0V V <sub>DS</sub> = 24V; V <sub>GS</sub> = 0V;T <sub>J</sub> =150°C			1 250	μА
V <sub>SDF</sub>	Diode forward voltage	I <sub>SD</sub> = 35A, V <sub>GS</sub> = 0 V			1.25	V

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