

# isc N-Channel MOSFET Transistor

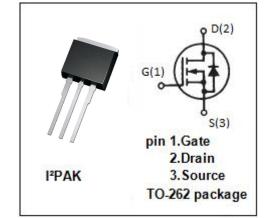
# STI150N10F7

#### FEATURES

- With TO-262(I2PAK) packaging
- · High speed switching
- · Low gate input resistance
- · Standard level gate drive
- · Easy to use
- 100% avalanche tested
- Minimum Lot-to-Lot variations for robust device performance and reliable operation



- Power supply
- · Switching applications

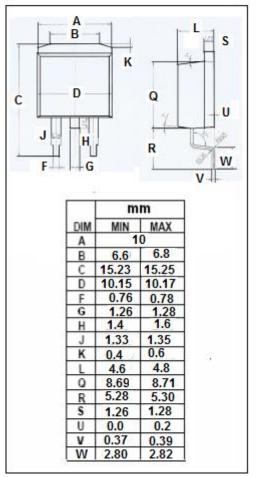


### ABSOLUTE MAXIMUM RATINGS(T<sub>a</sub>=25°C)

SYMBOL	PARAMETER	VALUE	UNIT
$V_{DSS}$	Drain-Source Voltage	100	V
V <sub>GSS</sub>	Gate-Source Voltage	±20	٧
I <sub>D</sub>	Drain Current-Continuous;	110	Α
I <sub>DM</sub>	Drain Current-Single Pulsed	440	Α
$P_D$	Total Dissipation	250	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	0.6	°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> = 0.25mA	100			V
$V_{\text{GS(th)}}$	Gate Threshold Voltage	$V_{DS}$ = $V_{GS}$ ; $I_D$ =0.25mA	2.5		4.5	V
R <sub>DS(on)</sub>	Drain-Source On-Resistance	V <sub>GS</sub> = 10V; I <sub>D</sub> =55A		3.6	4.2	mΩ
I <sub>GSS</sub>	Gate-Source Leakage Current	$V_{GS}$ = $\pm 30V; V_{DS}$ = $0V$			±0.1	μА
I <sub>DSS</sub>	Drain-Source Leakage Current	V <sub>DS</sub> = 100V; V <sub>GS</sub> = 0V;Tj=25°C V <sub>DS</sub> = 100V; V <sub>GS</sub> = 0V;Tj=125°C			1 100	μА
V <sub>SDF</sub>	Diode forward voltage	I <sub>SD</sub> =110A, V <sub>GS</sub> = 0 V			1.2	V



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