

# isc N-Channel MOSFET Transistor

# **R6520ENX**

#### **FEATURES**

- Drain Current –I<sub>D</sub>= 20A@ T<sub>C</sub>=25 °C
- Drain Source Voltage-
  - : V<sub>DSS</sub>=650V(Min)
- Static Drain-Source On-Resistance
  - :  $R_{DS(on)}$  = 205m  $\Omega$  (Max)
- · 100% avalanche tested
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

#### **DESCRIPTION**

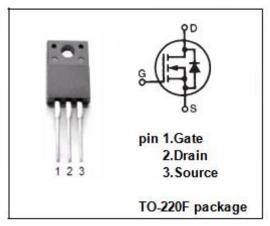
 Designed for use in switch mode power supplies and general purpose applications.

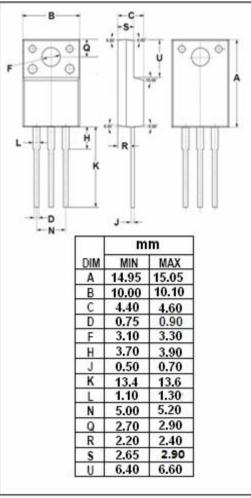
## ABSOLUTE MAXIMUM RATINGS(Ta=25°C)

SYMBOL	PARAMETER	VALUE	UNIT
V <sub>DSS</sub>	Drain-Source Voltage	650	V
V <sub>GS</sub>	Gate-Source Voltage-Continuous	±20	V
I <sub>D</sub>	Drain Current-Continuous	20	А
I <sub>DM</sub>	Drain Current-Single Pluse	60	А
P <sub>D</sub>	Total Dissipation @T <sub>C</sub> =25℃	68	W
TJ	Max. Operating Junction Temperature -55~150		$^{\circ}$ C
T <sub>stg</sub>	Storage Temperature -55~15		°C

### THERMAL CHARACTERISTICS

SYMBOL	PARAMETER	MAX	UNIT
R <sub>th j-c</sub>	Thermal Resistance, Junction to Case	1.8	°C/W







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#### **ELECTRICAL CHARACTERISTICS**

T<sub>C</sub>=25℃ unless otherwise specified

SYMBOL	PARAMETER	CONDITIONS	MIN	MAX	UNIT
V <sub>(BR)DSS</sub>	Drain-Source Breakdown Voltage	V <sub>GS</sub> = 0; I <sub>D</sub> = 1mA	650		V
V <sub>GS(th)</sub>	Gate Threshold Voltage	V <sub>DS</sub> = V <sub>GS</sub> ; I <sub>D</sub> =630uA	3	5	V
R <sub>DS(on)</sub>	Drain-Source On-Resistance	V <sub>GS</sub> = 10V; I <sub>D</sub> =9.5A		205	m Ω
I <sub>GSS</sub>	Gate-Body Leakage Current	V <sub>GS</sub> = ±20V;V <sub>DS</sub> = 0		±100	nA
I <sub>DSS</sub>	Zero Gate Voltage Drain Current	V <sub>DS</sub> = 650V; V <sub>GS</sub> = 0 V <sub>DS</sub> = 650V; V <sub>GS</sub> = 0@T <sub>J</sub> =125°C		100 1000	μА
V <sub>SD</sub>	Forward On-Voltage	I <sub>S</sub> = 20A; V <sub>GS</sub> = 0		1.5	V



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