

### INCHANGE SEMICONDUCTOR

## isc P-Channel MOSFET Transistor

## 2SJ170

### DESCRIPTION

- Low Drain-Source ON Resistance
- High Forward Transfer Admittance
- Low Leakage Current
- Enhancement-Mode
- Minimum Lot-to-Lot variations for robust device performance and reliable operation.

### APPLICATIONS

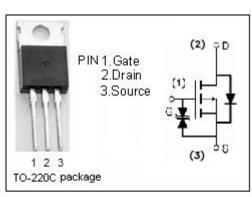
- High speed switching application
- Switching regulator ,DC-DC converter and Motor drive application

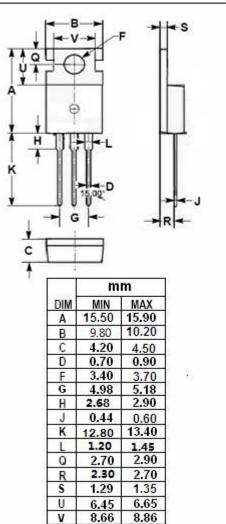
#### ABSOLUTE MAXIMUM RATINGS(T<sub>a</sub>=25℃)

SYMBOL	ARAMETER	VALUE	UNIT		
V <sub>DSS</sub>	Drain-Source Voltage (V <sub>GS</sub> =0)	-80	V		
V <sub>GS</sub>	Gate-Source Voltage	±20	V		
ID	Drain Current-continuous@ TC=37°C	-12	А		
P <sub>tot</sub>	Total Dissipation@TC=25°C	50	W		
Tj	Max. Operating Junction Temperature	-55~150	°C		
T <sub>stg</sub>	Storage Temperature Range	-55~150	°C		

#### THERMAL CHARACTERISTICS

SYMBOL	PARAMETER	МАХ	UNIT
R <sub>th j-c</sub>	Thermal Resistance, Junction to Case	3.1	°C/W
R <sub>th j-a</sub>	Thermal Resistance, Junction to Ambient	75	°C/W







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SYMBOL	PARAMETER	CONDITIONS	MIN	MAX	UNIT			
$V_{(BR)DSS}$	Drain-Source Breakdown Voltage	V <sub>GS</sub> = 0; I <sub>D</sub> = -10mA	-50		V			
V <sub>GS(TH)</sub>	Gate Threshold Voltage	V <sub>DS</sub> = V <sub>GS</sub> ; I <sub>D</sub> = -1mA	-2.0	-4	V			
R <sub>DS(ON)</sub>	Drain-Source On-stage Resistance	V <sub>GS</sub> = -10V; I <sub>D</sub> = -6.5A		0.35	Ω			
I <sub>GSS</sub>	Gate Source Leakage Current	V <sub>GS</sub> = -16V;V <sub>DS</sub> = 0		-10	uA			
Idss	Zero Gate Voltage Drain Current	V <sub>DS</sub> = -80V,V <sub>GS</sub> = 0		-0.25	mA			
$V_{SD}$	Diode Forward Voltage	I <sub>F</sub> =-12 A;V <sub>GS</sub> = 0		-1.1	V			

#### • ELECTRICAL CHARACTERISTICS (Tc=25°C)

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