

# isc P-Channel MOSFET Transistor

2SJ380

### **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**



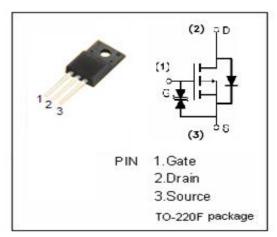
- · High speed switching application
- Switching regulator ,DC-DC converter and Motor drive application

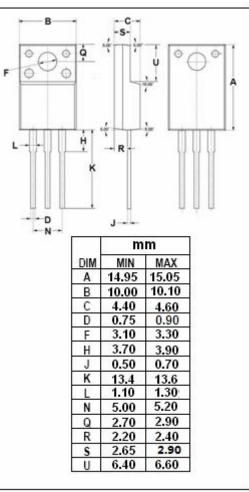
## ABSOLUTE MAXIMUM RATINGS(Ta=25°C)

SYMBOL	ARAMETER	VALUE	UNIT
V <sub>DSS</sub>	Drain-Source Voltage (V <sub>GS</sub> =0)	-100	V
V <sub>GS</sub>	Gate-Source Voltage	±20	V
I <sub>D</sub>	Drain Current-continuous@ TC=37℃	-12	Α
P <sub>tot</sub>	Total Dissipation@TC=25℃	35	W
T <sub>j</sub>	Max. Operating Junction Temperature	150	$^{\circ}$
T <sub>stg</sub>	Storage Temperature Range	-55~150	$^{\circ}$

## THERMAL CHARACTERISTICS

SYMBOL	PARAMETER	MAX	UNIT	
R <sub>th j-c</sub>	Thermal Resistance,Junction to Case	3.57	°C/W	
Rth j-a	Thermal Resistance,Junction to Ambient	62.5	°C/W	







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## • ELECTRICAL CHARACTERISTICS (T<sub>C</sub>=25°C)

SYMBOL	PARAMETER	CONDITIONS	MIN	MAX	UNIT
V <sub>(BR)DSS</sub>	Drain-Source Breakdown Voltage	V <sub>GS</sub> = 0; I <sub>D</sub> = -10mA	-100		V
$V_{\text{GS(TH)}}$	Gate Threshold Voltage	$V_{DS} = V_{GS}$ ; $I_D = -1$ mA	-0.8	-2.0	٧
R <sub>DS(ON)-1</sub>	Drain-Source On-stage Resistance	V <sub>GS</sub> = -10V; I <sub>D</sub> = -6A		0.21	Ω
R <sub>DS(ON)-2</sub>	Drain-Source On-stage Resistance	V <sub>GS</sub> = -4V; I <sub>D</sub> = -6A		0.32	Ω
I <sub>GSS</sub>	Gate Source Leakage Current	$V_{GS} = \pm 16V; V_{DS} = 0$		±10	uA
I <sub>DSS</sub>	Zero Gate Voltage Drain Current	V <sub>DS</sub> = -100V,V <sub>GS</sub> = 0		-0.1	mA
V <sub>SD</sub>	Diode Forward Voltage	I <sub>F</sub> =-12A;V <sub>GS</sub> = 0		-1.7	V



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