

INCHANGE SEMICONDUCTOR

isc P-Channel MOSFET Transistor

2SJ171

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

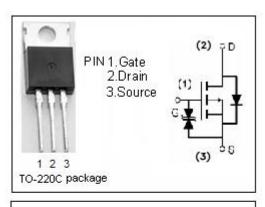
- High speed switching application
- Switching regulator ,DC-DC converter and Motor drive application

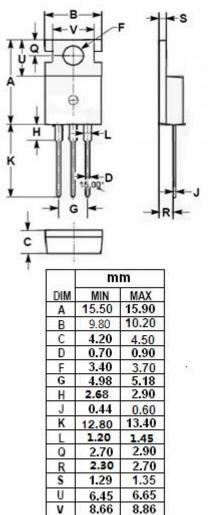


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SYMBOL	ARAMETER	VALUE	UNIT
V _{DSS}	Drain-Source Voltage (V _{GS} =0)	-50	V
V _{GS}	Gate-Source Voltage	±20	V
Ι _D	Drain Current-continuous@ TC=37℃	-9.7	А
P _{tot}	Total Dissipation@TC=25℃	40	W
Tj	Max. Operating Junction Temperature	150	°C
T _{stg}	Storage Temperature Range	-55~150	°C

THERMAL CHARACTERISTICS

SYMBOL	PARAMETER	МАХ	UNIT
R _{th j-c}	Thermal Resistance, Junction to Case	3.1	°C/W
R _{th j-a}	Thermal Resistance, Junction to Ambient	75	°C/W







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ELECTRICAL CHARACTERISTICS (TC=25 C)							
PARAMETER	CONDITIONS	MIN	МАХ	UNIT			
Drain-Source Breakdown Voltage	V _{GS} = 0; I _D = -10mA	-50		V			
Gate Threshold Voltage	V _{DS} = V _{GS} ; I _D = -1mA	-2.0	-4	V			
Drain-Source On-stage Resistance	V _{GS} = -10V; I _D = -6.5A		0.35	Ω			
Gate Source Leakage Current	V _{GS} = -16V;V _{DS} = 0		-10	uA			
Zero Gate Voltage Drain Current	V _{DS} = -50V,V _{GS} = 0		-0.25	mA			
Diode Forward Voltage	I _F =-9.7 A;V _{GS} = 0		-1.2	V			
	PARAMETER Drain-Source Breakdown Voltage Gate Threshold Voltage Drain-Source On-stage Resistance Gate Source Leakage Current Zero Gate Voltage Drain Current	PARAMETERCONDITIONSDrain-Source Breakdown VoltageVGS = 0; ID = -10mAGate Threshold VoltageVDS = VGS; ID = -1mADrain-Source On-stage ResistanceVGS = -10V; ID = -6.5AGate Source Leakage CurrentVGS = -16V; VDS = 0Zero Gate Voltage Drain CurrentVDS = -50V, VGS = 0	PARAMETERCONDITIONSMINDrain-Source Breakdown VoltageVGS= 0; ID= -10mA-50Gate Threshold VoltageVDS= VGS; ID= -1mA-2.0Drain-Source On-stage ResistanceVGS= -10V; ID= -6.5A-2.0Gate Source Leakage CurrentVGS= -16V; VDS= 0-2.0Zero Gate Voltage Drain CurrentVDS= -50V, VGS= 0-2.0	PARAMETERCONDITIONSMINMAXDrain-Source Breakdown Voltage $V_{GS}= 0; I_D=-10mA$ -50Gate Threshold Voltage $V_{DS}= V_{GS}; I_D=-1mA$ -2.0-4Drain-Source On-stage Resistance $V_{GS}=-10V; I_D=-6.5A$ 0.35Gate Source Leakage Current $V_{GS}=-16V; V_{DS}=0$ -10Zero Gate Voltage Drain Current $V_{DS}=-50V, V_{GS}=0$ -0.25			

• ELECTRICAL CHARACTERISTICS (Tc=25℃)

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