

INCHANGE SEMICONDUCTOR

isc P-Channel MOSFET Transistor

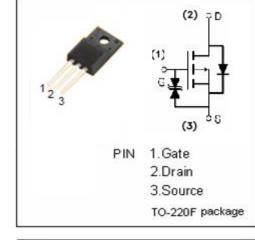
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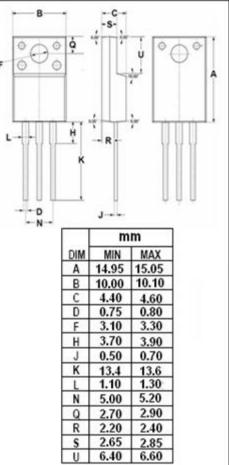
DESCRIPTION

- 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_a=25°C)

SYMBOL	ARAMETER	VALUE	UNIT
V _{DSS}	Drain-Source Voltage (V _{GS} =0)	-60	V
V_{GS}	Gate-Source Voltage	±15	V
ID	Drain Current-continuous@ TC=37℃	-20	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	MAX	UNIT				
Drain-Source Breakdown Voltage	V _{GS} = 0; I _D = -1mA	-60		V				
Gate Threshold Voltage	V _{DS} = V _{GS} ; I _D = -1mA	-1.0	-2	V				
Drain-Source On-stage Resistance	V _{GS} = -10V; I _D = -7.5A		0.07	Ω				
Gate Source Leakage Current	V _{GS} = -12V;V _{DS} = 0		-10	uA				
Zero Gate Voltage Drain Current	V _{DS} = -60V,V _{GS} = 0		-0.1	mA				
Diode Forward Voltage	I _F =-20A;V _{GS} = 0		-1.5	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 = -1mAGate Threshold VoltageVDS = VGS; ID = -1mADrain-Source On-stage ResistanceVGS = -10V; ID = -7.5AGate Source Leakage CurrentVGS = -12V; VDS = 0Zero Gate Voltage Drain CurrentVDS = -60V, VGS = 0	PARAMETERCONDITIONSMINDrain-Source Breakdown VoltageVGS= 0; ID= -1mA-60Gate Threshold VoltageVDS= VGS; ID= -1mA-1.0Drain-Source On-stage ResistanceVGS= -10V; ID= -7.5A-1.0Gate Source Leakage CurrentVGS= -12V; VDS= 0-1.0Zero Gate Voltage Drain CurrentVDS= -60V, VGS= 0-1.0	PARAMETERCONDITIONSMINMAXDrain-Source Breakdown Voltage $V_{GS}= 0; I_D= -1mA$ -60Gate Threshold Voltage $V_{DS}= V_{GS}; I_D= -1mA$ -1.0-2Drain-Source On-stage Resistance $V_{GS}= -10V; I_D= -7.5A$ 0.07Gate Source Leakage Current $V_{GS}= -12V; V_{DS}= 0$ -10Zero Gate Voltage Drain Current $V_{DS}= -60V, V_{GS}= 0$ -0.1				

• ELECTRICAL CHARACTERISTICS (Tc=25°C)

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