

SOT-23-3 Plastic-Encapsulate Transistors

HX3401MOSFET(P-Channel)

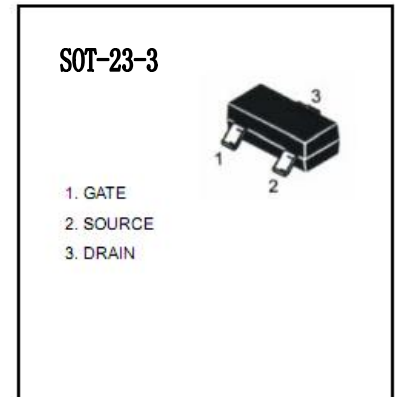
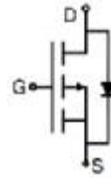
FEATURES

High Power and current handing capability

Lead free product is acquired

Surface Mount Package

MARKING: X18V



MAXIMUM RATINGS (TA=25°C unless otherwise noted)

Symbol	Parameter	Value	Units
V _{DS}	Drain-Source voltage	-30	V
V _{GS}	Gate-Source voltage	±12	V
I _D	Drain current	-4.2	A
P _D	Power Dissipation	1.2	W
T _j	Junction Temperature	-55-150	°C
T _{stg}	Storage Temperature	-55-150	°C

ELECTRICAL CHARACTERISTICS (T_{amb}=25°C unless otherwise specified)

Parameter	Symbol	Test conditions	MIN	TYP	MAX	UNIT
Drain-Source Breakdown Voltage	V _{(BR)DSS}	V _{GS} =0V, I _D =-250uA	-30			V
Gate-Threshold Voltage	V _{th(GS)}	V _{DS} = V _{GS} , I _D =-250 uA	-0.7	-1	-1.4	V
Gate-body Leakage	I _{GSS}	V _{DS} =0V, V _{GS} =±12V			±100	nA
Zero Gate Voltage Drain Current	I _{DSS}	V _{DS} =-30V, V _{GS} =0V			1	uA
Drain-Source On-Resistance	R _{DS(ON)}	V _{GS} =-2.5V, I _D =-1A		55	90	mΩ
		V _{GS} =-4.5V, I _D =-4A		52	75	mΩ
		V _{GS} =-10V, I _D =-4.2A		48		mΩ
Forward Trans conductance	g _{fs}	V _{DS} =-5V, I _D =-4.2A		10		s
Dynamic Characteristics						
Input Capacitance	C _{iss}	V _{DS} =-15V, V _{GS} =0V, f=1MHz		880		pF
Output Capacitance	C _{oss}			115		
Reverse Transfer Capacitance	C _{rss}			70		
Switching Capacitance						
Turn-on Delay Time	t _{d(on)}	V _{DD} =-15V, I _D =-4.2A, V _{GS} =-10V R _{GEN} =6Ω		7		nS
Turn-on Rise Time	t _r			3		nS
Turn-off Delay Time	t _{d(off)}			30		nS
Turn-off Fall Time	t _f			12		nS
Total Gate Charge	Q _g				9.5	
Gate-Source Charge	Q _{gs}	V _{DS} =-15V, I _D =-4A, V _{GS} =-4.5V,		2		nC
Gate-Drain Charge	Q _{gd}			3		nC
Drain-Source Diode Characteristics						
Diode Forward Voltage	V _{SD}	V _{GS} =0V, I _D =-1A			-1.2	V