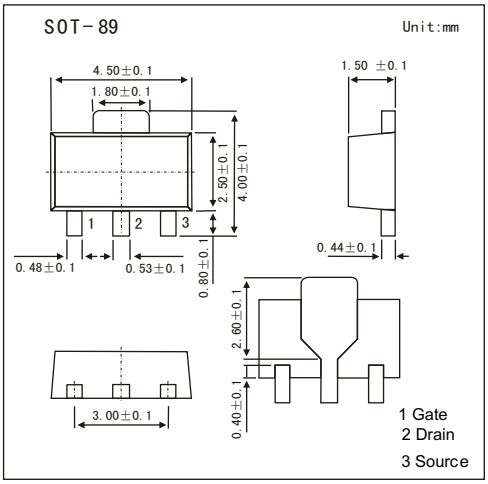
TY Semicondutor®

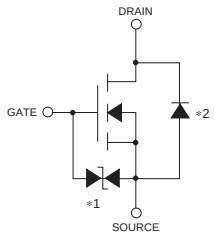
Product specification

KX020N06



■ Features

- $V_{DS\ (V)}$ = 60V
- I_D = 2 A (V_{GS} = 10V)
- $R_{DS(ON)}$ < 200mΩ (V_{GS} = 10V)
- $R_{DS(ON)}$ < 280mΩ (V_{GS} = 4.5V)
- $R_{DS(ON)}$ < 340mΩ (V_{GS} = 4V)



■ Absolute Maximum Ratings Ta = 25℃

Parameter	Symbol	Rating	Unit
Drain-Source Voltage	V_{DS}	60	V
Gate-Source Voltage	V_{GS}	± 20	
Continuous Drain Current	I_D	±2	A
Pulsed Drain Current	I_{DM}	±8	
Power Dissipation	P_D	500 2	W
Thermal Resistance.Junction- to-Ambient	R_{thJA}	250	℃/W
Thermal Resistance.Junction- to-Case	R_{thc}	62.5	
Junction and Storage Temperature Range	T_J, T_{STG}	-55 to 150	℃

■ Electrical Characteristics Ta = 25℃

Parameter	Symbol	Testconditons	Min	Typ	Max	Unit
Drain-Source Breakdown Voltage	V_{DSS}	I_D=1mA, V_{GS}=0V	60			V
Zero Gate Voltage Drain Current	I_{DSS}	V_{DS}=60V, V_{GS}=0V			1	μA
Gate-Body leakage current	I_{GSS}	V_{DS}=0V, V_{GS}=±20V			±10	μA
Gate Threshold Voltage	$V_{GS(th)}$	V_{DS}=10V I_D=1mA	1.0		2.5	V
Static Drain-Source On-Resistance	$R_{DS(ON)}$	V_{GS}=10V, I_D=2A		150	200	mΩ
		V_{GS}=4.5V, I_D=2A		200	280	
		V_{GS}=4V, I_D=2A		240	340	
Input Capacitance	C_{iss}	V_{GS}=0V, V_{DS}=10V, f=1MHz		140		pF
Output Capacitance	C_{oss}			50		
Reverse Transfer Capacitance	C_{rss}			40		
Total Gate Charge	Q_g	V_{GS}=10V, V_{DS}=30V, I_D=2A		7.0	14	nC
Gate Source Charge	Q_{gs}			1		
Gate Drain Charge	Q_{gd}			2		
Turn-On DelayTime	$t_{d(on)}$	V_{GS}=10V, V_{DS}=30V, R_L=30Ω,R_{GEN}=10Ω , I_D=1A		7.0		ns
Turn-On Rise Time	t_r			10		
Turn-Off DelayTime	$t_{d(off)}$			22		
Turn-Off Fall Time	t_f			18		
Diode Forward Voltage	V_{SD}	I_S=2A,V_{GS}=0V			1.2	V