HFZT

10N60

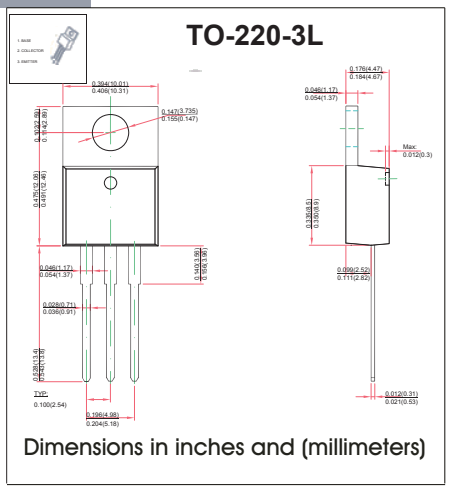
TO-220-3L Plastic-Encapsulate MOSFETS

FEATURES

- Low Crss
- Fast Switching
- 100% avalanche tested
- N-Channel Power MOSFET

MECHANICAL DATA

- Case style:TO-220-3L molded plastic
- Mounting position:any



MAXIMUM RATINGS AND CHARACTERISTICS

@ 25°C Ambient Temperature (unless otherwise noted)

Parameter	Symbol	Value	Unit
Drain-Source Voltage	V_{DS}	600	V
Gate-Source Voltage	V_{GS}	±30	
Continuous Drain Current	I_D	10	A
Power Dissipation	P_D	2	W
Thermal Resistance from Junction to Ambient	$R_{\theta JA}$	62.5	℃/W
Junction Temperature	T_J	150	℃
Storage Temperature	T_{stg}	-50 ~+150	

MOSFET ELECTRICAL CHARACTERISTICS T_A=25℃ unless otherwise specified

Parameter	Symbol	Test Condition	Min	Typ	Max	Unit
Drain-Source Breakdown Voltage	$V_{(BR)\ DSS}$	V_{GS} = 0V, I_D =250μA	600			V
Gate-Threshold Voltage (note1)	$V_{GS(th)}$	V_{DS} =V_{GS}, I_D =250μA	2.0		4.0	
Gate-Body Leakage Current (note1)	I_{GSS}	V_{DS} =0V, V_{GS} =±30V			±100	nA
Zero Gate Voltage Drain Current	I_{DSS}	V_{DS} =600V, V_{GS} =0V			10	μA
Drain-Source On-State Resistance (note1)	$R_{DS(on)}$	V_{GS} =10V, I_D =5A			1	Ω
Input Capacitance	C_{iss}	V_{DS} =25V,V_{GS} =0V, f =1MHz		1430		pF
Output Capacitance	C_{oss}			117		
Reverse Transfer Capacitance	C_{rss}			2.2		
Turn-On Delay Time	$t_{d(on)}$	V_{DD}=325V,I_D=10A, R_G=25Ω		46		ns
Rise Time	t_r			74		
Turn-Off Delay Time	$t_{d(off)}$			340		
Fall Time	t_f			66		
Forward on Voltage(note1)	V_{SD}	V_{GS} =0V, I_S=10A			1.4	V

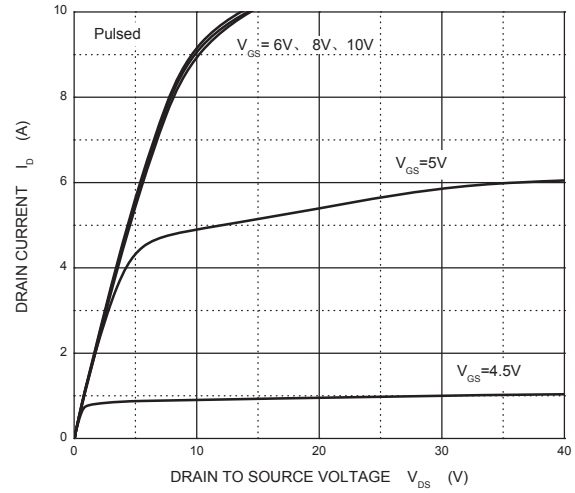
Notes:

1. Pulse Test : Pulse Width≤300μs, Duty Cycle ≤2%.

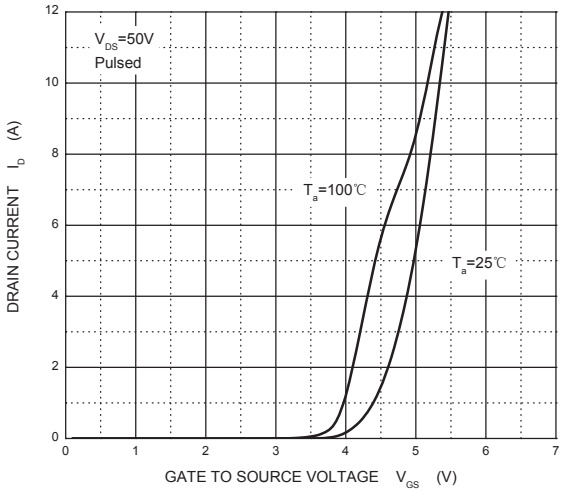
RATINGS AND CHARACTERISTIC CURVES

■ Typical Characterisitics

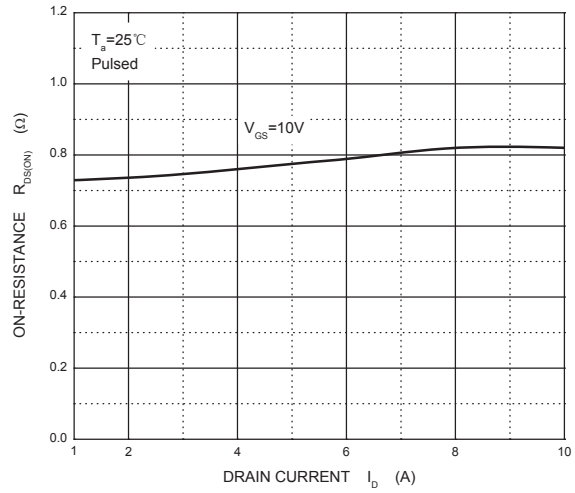
Output Characteristics



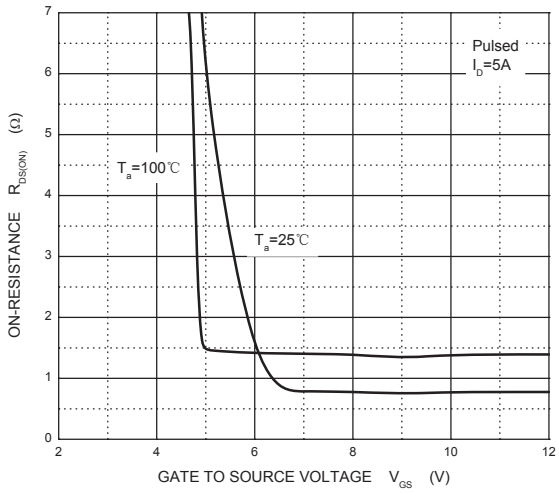
Transfer Characteristics



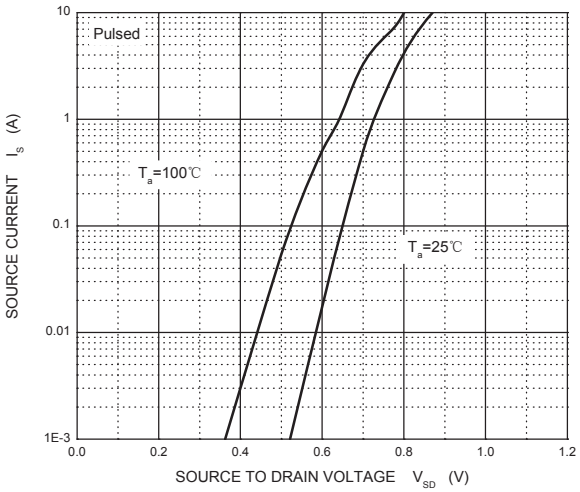
$R_{DS(ON)}$ —— I_D



$R_{DS(ON)}$ —— V_{GS}



I_S —— V_{SD}



Threshold Voltage