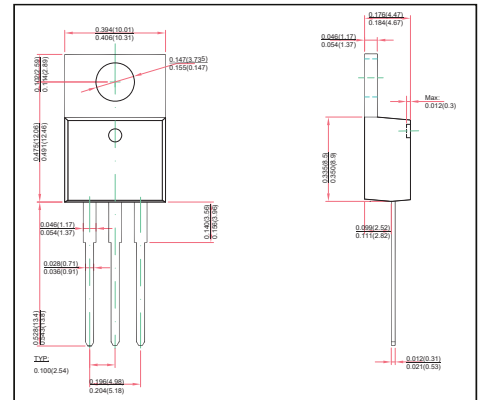


**TO-220-3L Plastic-Encapsulate MOSFETS**
**FEATURE**

- Lower Capacitance
- Fast switching capability
- Improved dv/dt capability
- 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 <sub>DS</sub>	600	V
Gate-Source Voltage	V <sub>GS</sub>	±30	
Continuous Drain Current	I <sub>D</sub>	12	A
Single Pulsed Avalanche Energy (note1)	E <sub>AS</sub>	790	mJ
Power Dissipation	PD	2	W
Thermal Resistance from Junction to Ambient	R <sub>θJA</sub>	62.5	°C/ W
Operating Temperature	T <sub>J</sub>	150	°C
Storage Temperature	T <sub>STG</sub>	-55 ~ +150	

Parameter	Symbol	Test Condition	Min	Typ	Max	Unit
Drain-source breakdown voltage	V <sub>(BR)DSS</sub>	V <sub>GS</sub> = 0V, I <sub>D</sub> = 250μA	600			V
Drain-source diode forward voltage(note2)	V <sub>SD</sub>	V <sub>GS</sub> = 0V, I <sub>S</sub> = 12A			1.4	
Zero gate voltage drain current	I <sub>DSS</sub>	V <sub>DS</sub> = 600V, V <sub>GS</sub> = 0V			10	μA
Gate-body leakage current, forward(note2)	I <sub>GSSF</sub>	V <sub>DS</sub> = 0V, V <sub>GS</sub> = 30V			100	nA
Gate-body leakage current, reverse(note2)	I <sub>GSSR</sub>	V <sub>DS</sub> = 0V, V <sub>GS</sub> = -30V			-100	
Gate-threshold voltage	V <sub>GS(th)</sub>	V <sub>DS</sub> = V <sub>GS</sub> , I <sub>D</sub> = 250μA	2.0		4.0	V
Static drain-source on-resistance	R <sub>DS(on)</sub>	V <sub>GS</sub> = 10V, I <sub>D</sub> = 6.0A			0.8	Ω
Input capacitance	C <sub>iss</sub>	V <sub>DS</sub> = 25V, V <sub>GS</sub> = 0V, f = 1MHz		1800		pF
Output capacitance	C <sub>oss</sub>		200			
Reverse transfer capacitance	C <sub>rss</sub>		25			
Turn-on delay time	t <sub>d(on)</sub>	V <sub>DD</sub> = 325V, R <sub>G</sub> = 4.7Ω, I <sub>D</sub> = 12A		30		ns
Turn-on rise time	t <sub>r</sub>		90			
Turn-off delay time	t <sub>d(off)</sub>		160			
Turn-off fall time	t <sub>f</sub>		90			