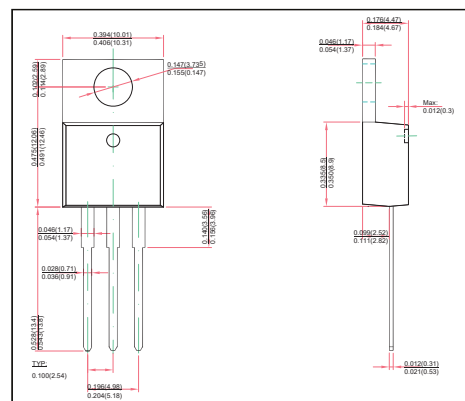


TO-220-3L Plastic-Encapsulate MOSFETS
FEATURE

- 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 _{DS}	600	V
Gate-Source Voltage	V _{GS}	±30	
Continuous Drain Current	I _D	12	A
Single Pulsed Avalanche Energy (note1)	E _{AS}	790	mJ
Power Dissipation	PD	2	W
Thermal Resistance from Junction to Ambient	R _{θJA}	62.5	°C/ W
Operating Temperature	T _J	150	°C
Storage Temperature	T _{STG}	-55 ~ +150	

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