

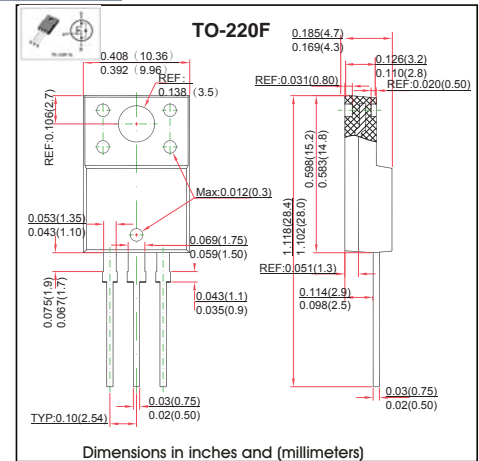
## TO-220F Plastic-Encapsulate MOSFETS

### FEATURES

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

### MECHANICAL DATA

- Case style:TO-220F 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	°C/W
Junction Temperature	$T_J$	150	°C
Storage Temperature	$T_{sig}$	-50 ~ +150	

### MOSFET ELECTRICAL CHARACTERISTICS $T_A=25^\circ\text{C}$ unless otherwise specified

Parameter	Symbol	Test Condition	Min	Typ	Max	Unit
Drain-Source Breakdown Voltage	$V_{(BR)DSS}$	$V_{GS} = 0V, I_D = 250\mu A$	600			V
Gate-Threshold Voltage (note1)	$V_{GS(th)}$	$V_{DS} = V_{GS}, I_D = 250\mu A$	2.0	3.5	4.0	
Gate-Body Leakage Current (note1)	$I_{GSS}$	$V_{DS} = 0V, V_{GS} = \pm 30V$			±100	nA
Zero Gate Voltage Drain Current	$I_{DSS}$	$V_{DS} = 600V, V_{GS} = 0V$			10	μA
Drain-Source On-State Resistance (note1)	$R_{DS(on)}$	$V_{GS} = 10V, I_D = 5A$		0.75	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	$t_{d(on)}$	$V_{DD} = 325V, I_D = 10A, R_G = 25\Omega$		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

