TIGER ELECTRONIC CO.,LTD

Product specification

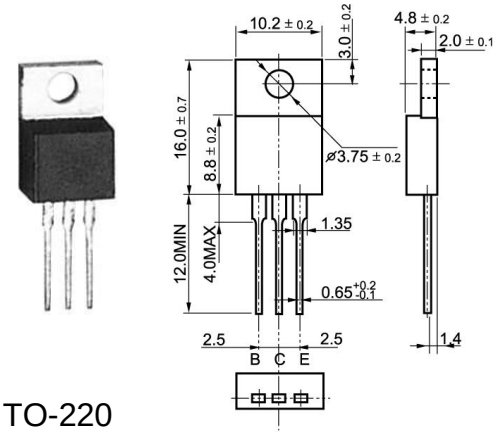
600V N-Channel MOSFET — FQP10N60

DESCRIPTION

These N-Channel enhancement mode power field effect transistors are produced using Fairchild's proprietary,planar, DMOS technology.
This advanced technology has been especially tailored to minimize on-state resistance, provide superior switching performance, and withstand high energy pulse in the avalanche and commutation mode. These devices are well suited for high efficiency switch mode power supplies.

ABSOLUTE MAXIMUM RATINGS (Ta = 25 °C)

Parameter	Symbol	Value	Unit
Drain-Source Voltage	V_{DSS}	600	V
Drain Current - Continuous	I_D	9.5	A
Drain Current - Pulsed	I_{DM}	38	A
Gate-Source Voltage	V_{GSS}	±30	V
Power Dissipation	P_D	156	W
Max. Operating Junction Temperature	T_j	150	°C
Storage Temperature	T_{stg}	-55~150	°C



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ELECTRICAL CHARACTERISTICS (Ta = 25 °C)

Parameter	Symbol	Test Conditions	Min.	Typ.	Max.	Unit
Drain-Source Breakdown Voltage	BV_{DSS}	V_{GS} = 0V, I_D =250 μ A	600	—	—	V
Zero Gate Voltage Drain Current	I_{DSS}	V_{DS} =600V, V_{GS} =0V	—	—	1.0	uA
Gate-Body Leakage Current, Forward	I_{GSSF}	V_{GS} =30V, V_{DS} =0V	—	—	100	nA
Gate-Body Leakage Current, Reverse	I_{GSSR}	V_{GS} = -30V, V_{DS} =0V	—	—	-100	nA
Gate Threshold Voltage	$V_{GS(th)}$	V_{DS} = V_{GS} , I_D =250 μ A	2.0	—	4.0	V
Static Drain-Source On-Resistance	$R_{DS(on)}$	V_{GS} = 10 V, I_D = 4.75 A	—	0.6	0.73	**W**
Drain-Source Diode Forward Voltage	V_{SD}	V_{GS} = 0 V, I_S = 9.5 A	—	—	1.4	V