ZVP3306FTA Datasheet

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DiGi Electronics Part Number	ZVP3306FTA-DG
Manufacturer	Diodes Incorporated
Manufacturer Product Number	ZVP3306FTA
Description	MOSFET P-CH 60V 90MA SOT23-3
Detailed Description	P-Channel 60 V 90mA (Ta) 330mW (Ta) Surface Mount SOT-23-3

Tel: +00 852-30501935

RFQ Email: Info@DiGi-Electronics.com

Purchase and inquiry

Manufacturer Product Number:	Manufacturer:
ZVP3306FTA	Diodes Incorporated
Series:	Product Status:
-	Active
FET Type:	Technology:
P-Channel	MOSFET (Metal Oxide)
Drain to Source Voltage (Vdss):	Current - Continuous Drain (Id) @ 25°C:
60 V	90mA (Ta)
Drive Voltage (Max Rds On, Min Rds On):	Rds On (Max) @ Id, Vgs:
10V	14Ohm @ 200mA, 10V
Vgs(th) (Max) @ Id:	Vgs (Max):
3.5V @ 1mA	±20V
Input Capacitance (Ciss) (Max) @ Vds:	FET Feature:
50 pF @ 18 V	-
Power Dissipation (Max):	Operating Temperature:
330mW (Ta)	-55°C ~ 150°C (TJ)
Mounting Type:	Supplier Device Package:
Surface Mount	SOT-23-3
Package / Case:	Base Product Number:
TO-236-3, SC-59, SOT-23-3	ZVP3306

Environmental & Export classification

RoHS Status:	Moisture Sensitivity Level (MSL):
ROHS3 Compliant	1 (Unlimited)
REACH Status:	ECCN:
REACH Unaffected	EAR99
HTSUS:	
8541.21.0095	

SOT23 P-CHANNEL ENHANCEMENT MODE VERTICAL DMOS FET

ZVP3306F

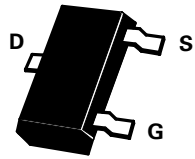
ISSUE 3 – JANUARY 1996

FEATURES

* 60 Volt V_{DS}
* $R_{DS(on)}$=14Ω

PARTMARKING DETAIL – ML

COMPLEMENTARY TYPE – ZVN3306F



SOT23

ABSOLUTE MAXIMUM RATINGS.

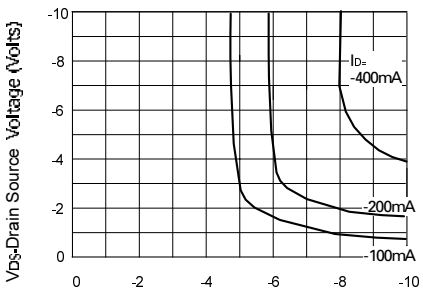
PARAMETER	SYMBOL	VALUE	UNIT
Drain-Source Voltage	V_{DS}	-60	V
Continuous Drain Current at T_{amb}=25°C	I_D	-90	mA
Pulsed Drain Current	I_{DM}	-1.6	A
Gate Source Voltage	V_{GS}	± 20	V
Power Dissipation at T_{amb}=25°C	P_{tot}	330	mW
Operating and Storage Temperature Range	T_j:T_{stg}	-55 to +150	°C

ELECTRICAL CHARACTERISTICS (at T_{amb} = 25°C unless otherwise stated).

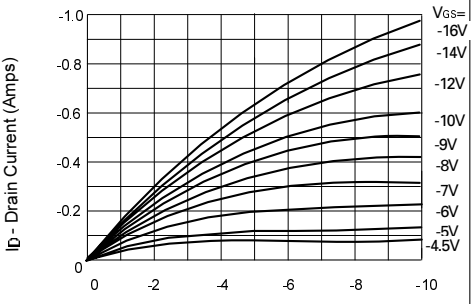
PARAMETER	SYMBOL	MIN.	MAX.	UNIT	CONDITIONS.
Drain-Source Breakdown Voltage	BV_{DSS}	-60		V	I_D=-1mA, V_{GS}=0V
Gate-Source Threshold Voltage	$V_{GS(th)}$	-1.5	-3.5	V	I_D=-1mA, V_{DS}= V_{GS}
Gate-Body Leakage	I_{GSS}		20	nA	V_{GS}=± 20V, V_{DS}=0V
Zero Gate Voltage Drain Current	I_{DSS}		-0.5 -50	μA μA	V_{DS}=-60 V, V_{GS}=0V V_{DS}=-48 V, V_{GS}=0V, T=125°C(2)
On-State Drain Current(1)	$I_{D(on)}$	-400		mA	V_{DS}=-18 V, V_{GS}=-10V
Static Drain-Source On-State Resistance (1)	$R_{DS(on)}$		14	Ω	V_{GS}=-10V, I_D=-200mA
Forward Transconductance (1)(2)	g_{fs}	60		mS	V_{DS}=-18V, I_D=-200mA
Input Capacitance (2)	C_{iss}		50	pF	V_{DS}=-18V, V_{GS}=0V, f=1MHz
Common Source Output Capacitance (2)	C_{oss}		25	pF	
Reverse Transfer Capacitance (2)	C_{rss}		8	pF	
Turn-On Delay Time (2)(3)	$t_{d(on)}$		8	ns	V_{DD}≈-18V, I_D=-200mA
Rise Time (2)(3)	t_r		8	ns	
Turn-Off Delay Time (2)(3)	$t_{d(off)}$		8	ns	
Fall Time (2)(3)	t_f		8	ns	

(1) Measured under pulsed conditions. Width=300μs. Duty cycle ≤2% (2) Sample test.
(3) Switching times measured with 50Ω source impedance and <5ns rise time on a pulse generator
Spice parameter data is available upon request for this device

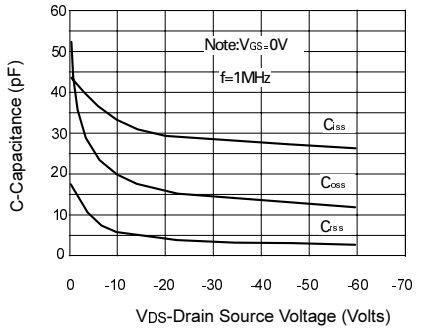
TYPICAL CHARACTERISTICS



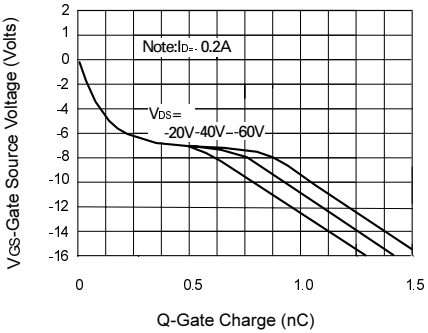
Voltage Saturation Characteristics



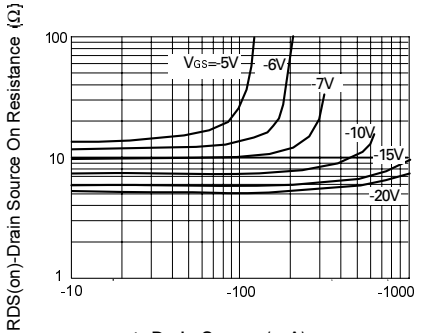
Saturation Characteristics



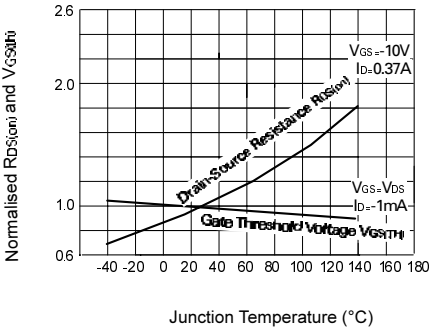
Capacitance v drain-source voltage



Gate charge v gate-source voltage



On-resistance vs Drain Current



Normalised $R_{DS(on)}$ and $V_{GS(th)}$ vs Temperature

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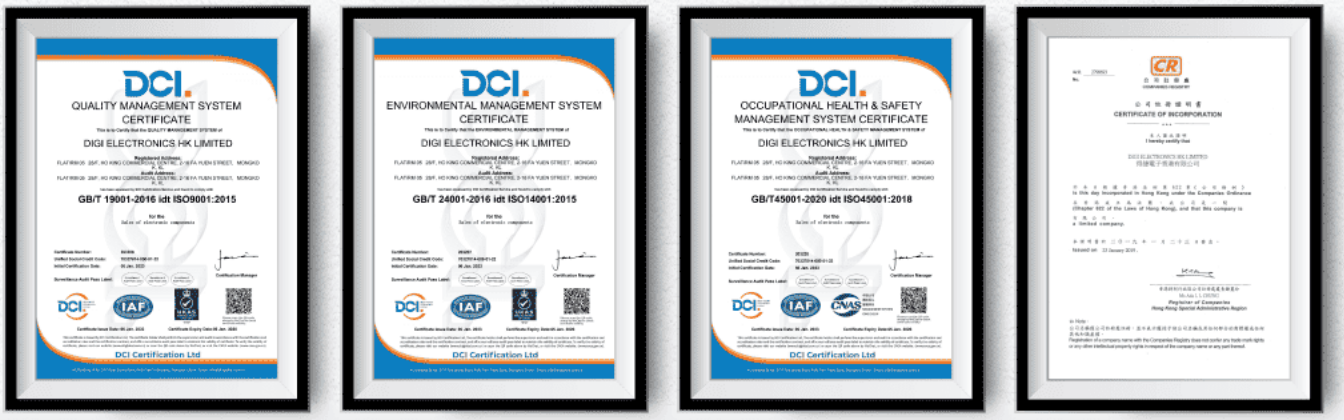

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