RECOMMEND
YJQD12N03B
FOR NEW DESIGN

N-Channel Enhancement Mode Field Effect Transistor

Product Summary

- V_{DS} 30 V
- I_D 12 A
- $R_{DS(ON)}$(at V_{GS}= 10V) 16 mohm
- $R_{DS(ON)}$(at V_{GS}= 4.5V) 30 mohm
- 100% UIS Tested
- 100% V_{DS} Tested

General Description

- Trench Power LV MOSFET technology
- Excellent package for heat dissipation
- High density cell design for low $R_{DS(ON)}$

Applications

- High current load applications
- Load switching
- Hard switched and high frequency circuits
- Uninterruptible power supply

■ **Absolute Maximum Ratings** (T_A=25 unless otherwise noted)

Parameter	Symbol	Limit	Unit
Drain-source Voltage	V_{DS}	30	V
Gate-source Voltage	V_{GS}	± 20	V
Drain Current (T_C=25)	I		

■ Electrical Characteristics (T_J=25 unless otherwise noted)

Parameter	Symbol	Conditions	Min	Typ	Max	Units
Static Parameter						
Drain-Source Breakdown Voltage	BV_{DSS}	V_{GS}= 0V, I_D=250μA	30			V
Zero Gate Voltage Drain Current	I_{DSS}	V_{DS}=30V,V_{GS}=0V			1	μA
Gate-Body Leakage Current	I_{GSS}	V_{GS}= ± 20V, V_{DS}=0V			± 100	nA
Gate Threshold Voltage	$V_{GS(th)}$	V_{DS}= V_{GS}, I_D=250μA	1.0	1.5	2.5	V
Static Drain-Source On-Resistance	$R_{DS(ON)}$	V_{GS}= 10V, I_D=10A				

Typical Performance Characteristics

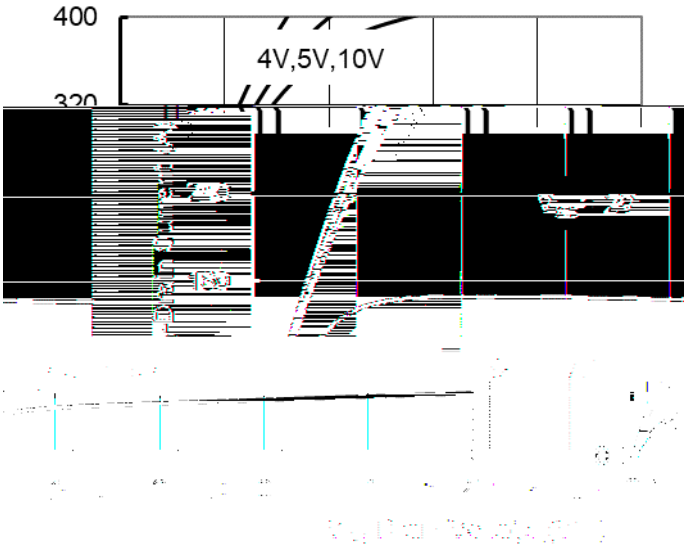

Figure 1. Output Characteristics

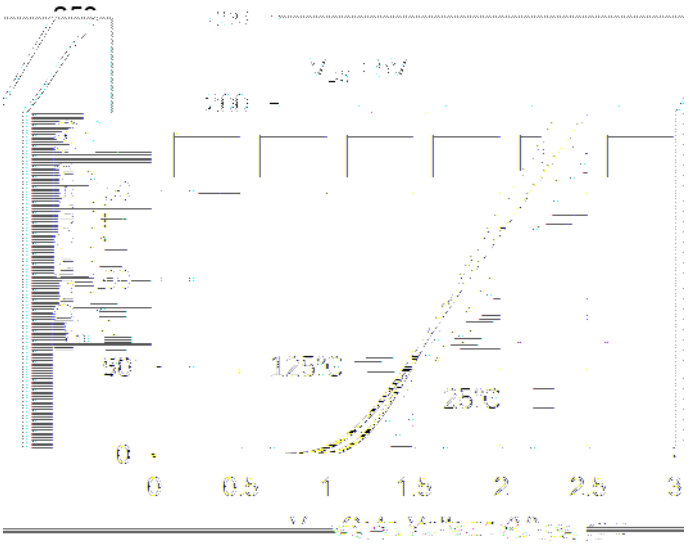

Figure 2. Transfer Characteristics

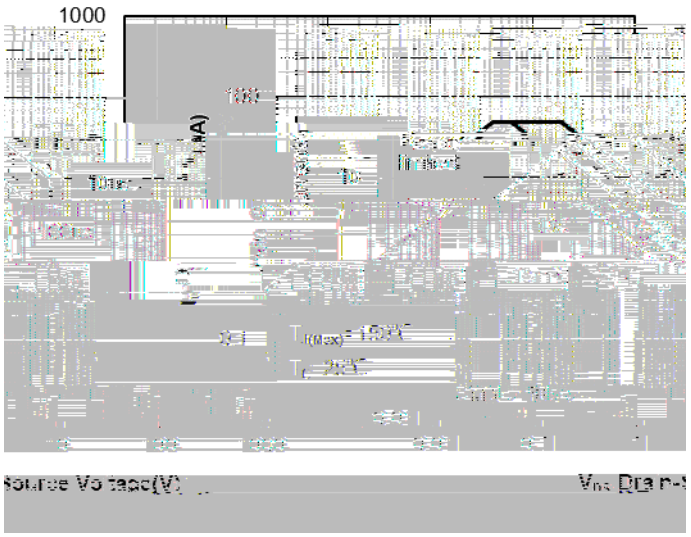

Figure 7. Safe Operation Area

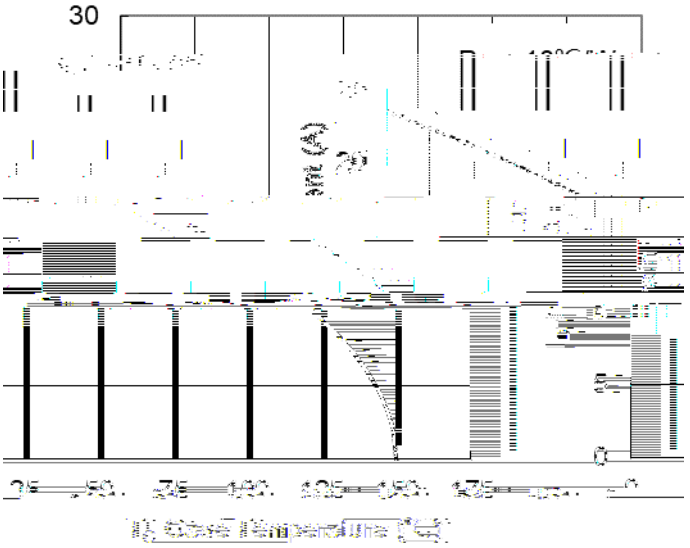

Figure 8. Maximum Continuous Drain Current vs Case Temperature