



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 ($T_A=25^\circ\text{C}$ unless otherwise noted)

Parameter	Symbol	Limit	Unit
Drain-source Voltage	V_{DS}	30	V
Gate-source Voltage	V_{GS}	$\pm 20=93 Td ()Tj ET E397480 /P </MCID 8$	
Drain Current	I_D		



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■ 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

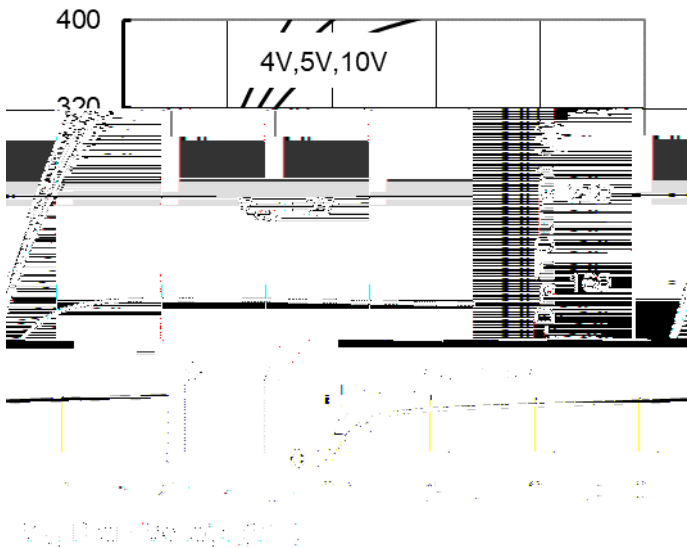


Figure 1. Output Characteristics

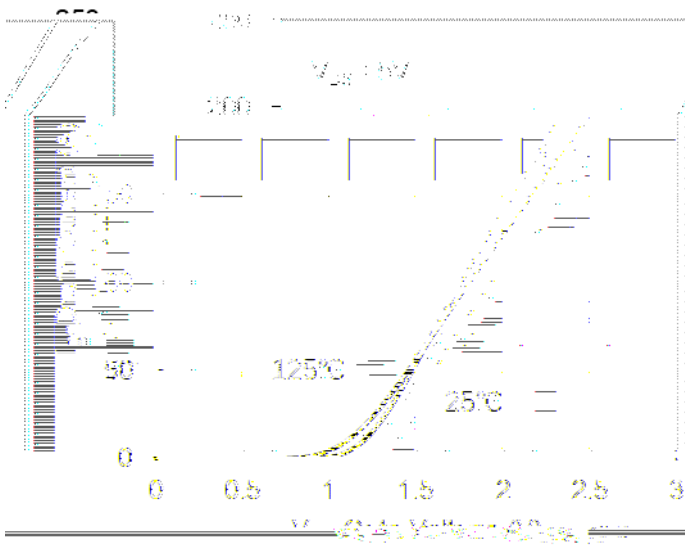


Figure 2. Transfer Characteristics

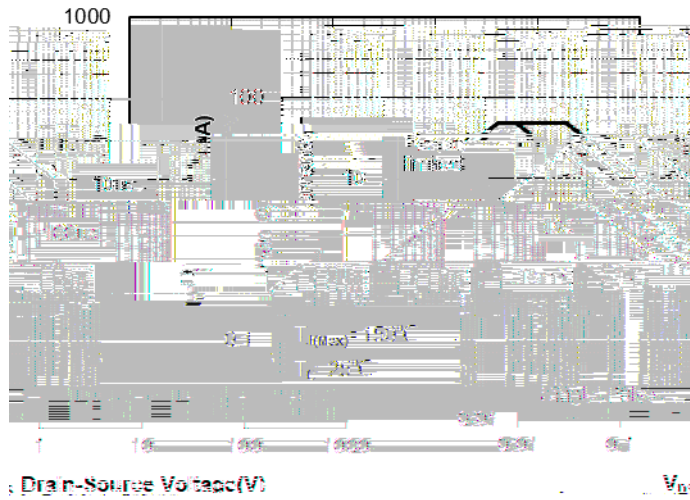


Figure 7. Safe Operation Area

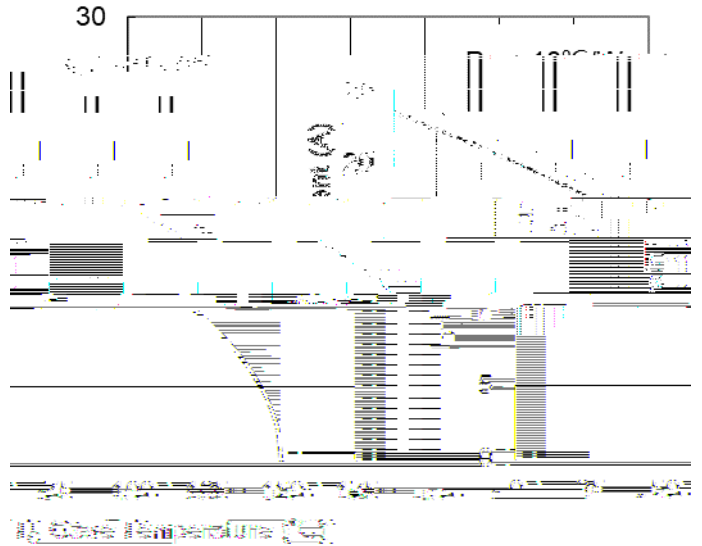
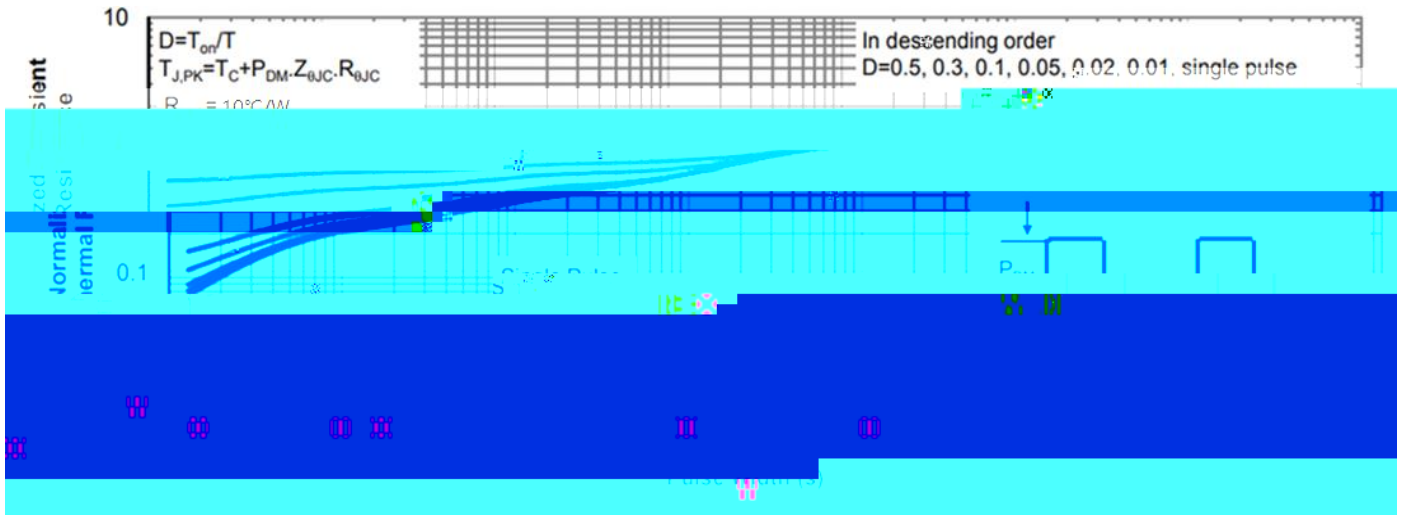


Figure 8. Maximum Continuous Drain Current vs Case Temperature





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