



# YJS03N10A

## N-Channel Enhancement Mode Field Effect Transistor

### Product Summary

$V_{DS}$	100V
$I_D$	3.0A
$R_{DS(ON)}$ ( at $V_{GS}= 10V$ )	120mohm
$R_{DS(ON)}$ ( at $V_{GS}= 4.5V$ )	140mohm

### General Description

MV MOSFET technology  
 Excellent package for heat dissipation  
 High density cell design for low  $R_{DS(ON)}$   
 1  
 -0 Flammability Rating  
 Halogen Free

### Applications

DC-DC Converters  
 Power management functions

### Absolute Maximum Ratings ( $T_A=25$ unless otherwise noted)

Parameter	Symbol	Limit	Unit	
Drain-source Voltage	$V_{DS}$	100	V	
Gate-source Voltage	$V_{GS}$	20	V	
Drain Current	$I_D$	$T_A=25$	3	A
		$T_A=70$	2.4	
Pulsed Drain Current <sup>A</sup>	$I_{DM}$	12	A	

Single Pulse Avalanche Energy

$E_{AS}$



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## Electrical Characteristics ( $T_J=25$ unless otherwise noted)

Parameter	Symbol	Conditions	Min	Typ	Max	Units
<b>Static Parameter</b>						
Drain-Source Breakdown Voltage	$BV_{DSS}$	$V_{GS}=0V, I_D=250$	100			V
Zero Gate Voltage Drain Current	$I_{DSS}$	$V_{DS}=100V, V_{GS}=0V$			1	
Gate-Body Leakage Current	$I_{GSS}$	$V_{GS}=20V, V_{DS}=0V$			100	nA
Gate Threshold Voltage	$V_{GS(th)}$	$V_{DS}=V_{GS}, I_D=250$	1.1	1.8	3.0	V
Static Drain-Source On-Resistance	$R_{DS(ON)}$	$V_{GS}=10V, I_D=3A$		95	120	m
		$V_{GS}=4.5V, I_D=2.4A$		100	140	
Diode Forward Voltage	$V_{SD}$	$I_S=3A, V_{GS}=0V$		0.8	1.2	V



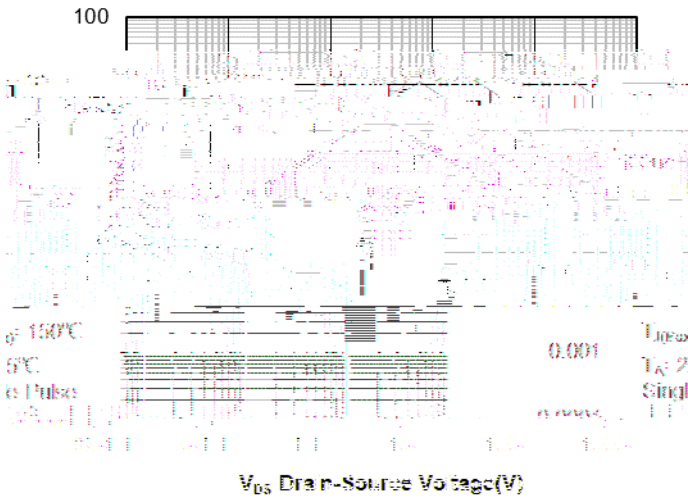


Figure 7. Safe Operation Area

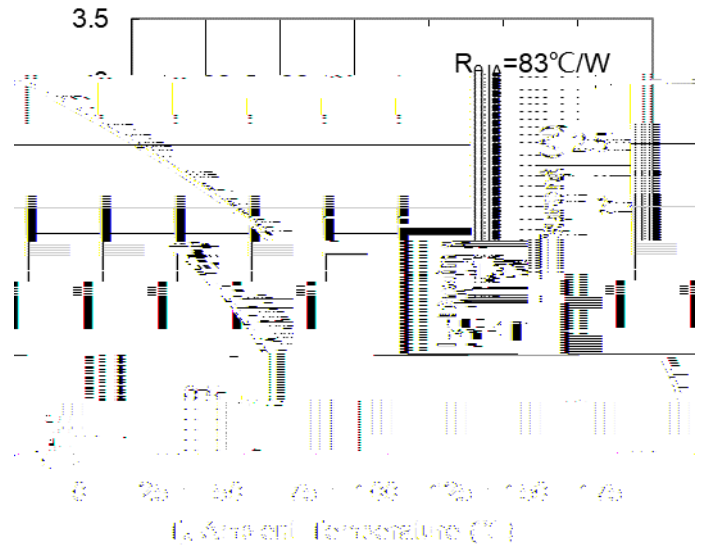


Figure 8. Maximum Continuous Drain Current vs Ambient Temperature

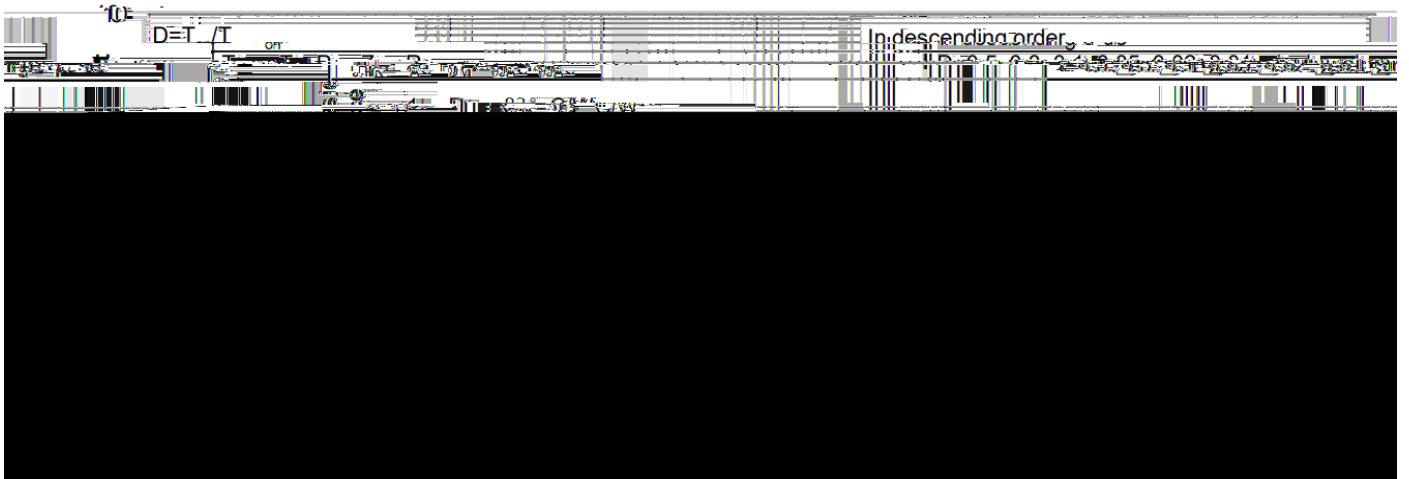


Figure 9. Normalized Maximum Transient Thermal Impedance

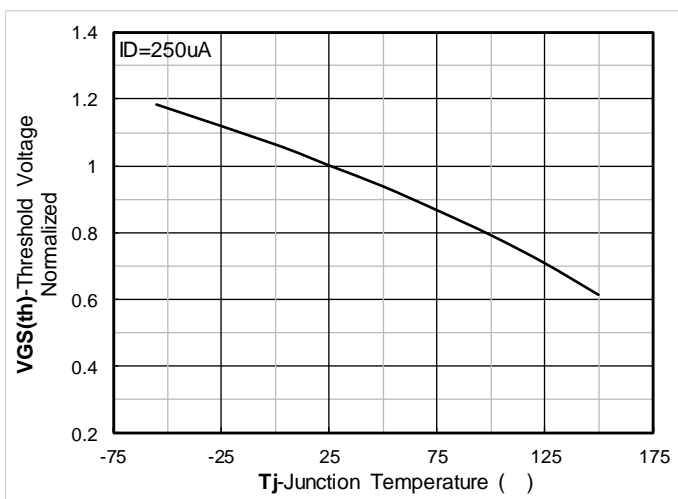
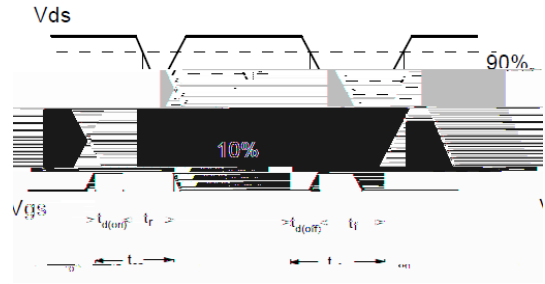
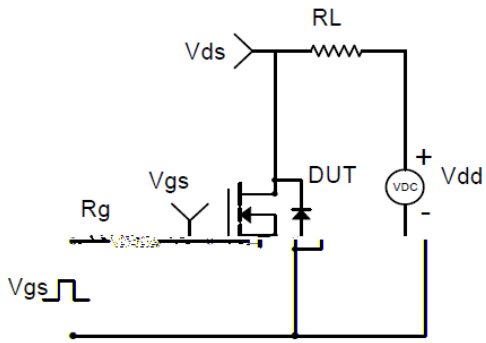
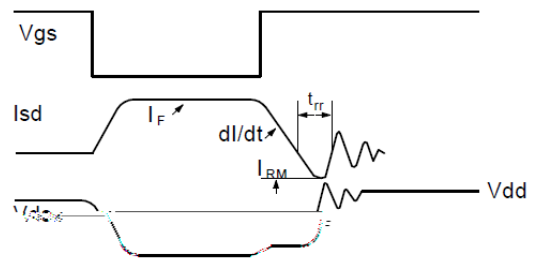
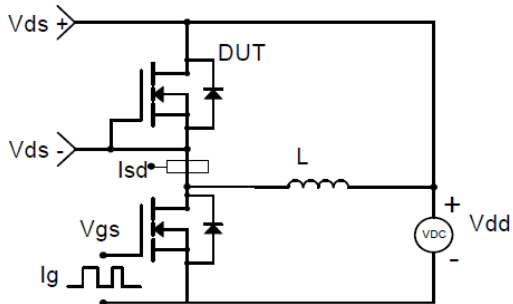


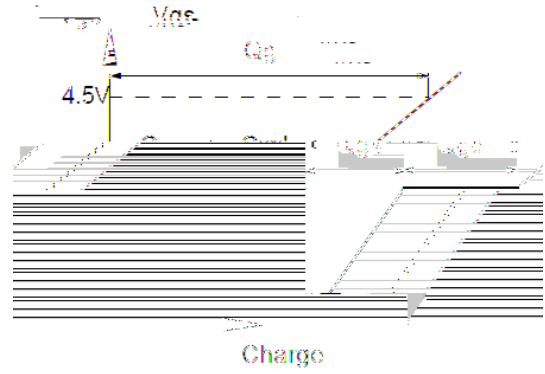
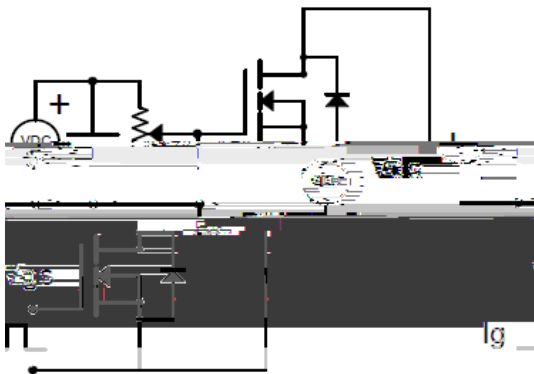
Figure 10. Normalized Threshold voltage



**Resistive Switching Test Circuit & Waveforms**



**Diode Recovery Test Circuit & Waveforms**

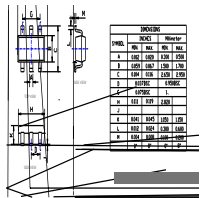
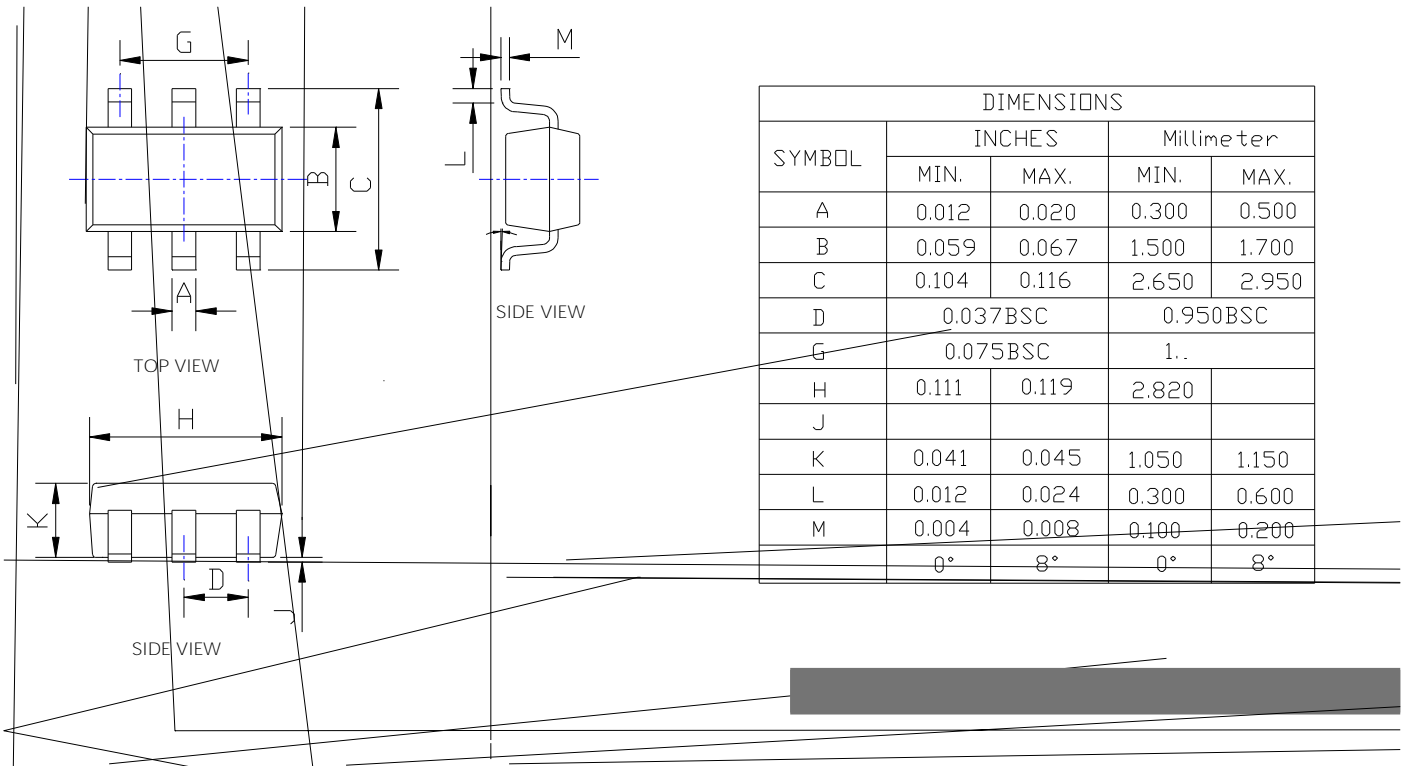


**Gate Charge Test Circuit & Waveform**



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## SOT-23-6L Package information





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## Disclaimer

The information presented in this document is for reference only. Yangzhou Yangjie Electronic Technology Co., Ltd. reserves the right to make changes without notice for the specification of the products displayed herein to improve reliability.