



or

Unit
V
V
A
A
mJ
W
Units
/W



# YJD12N10B

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

Parameter	Symbol	Conditions	Min	Typ	Max	Units
<b>Static Parameter</b>						

Drain



# YJD12N10B

## Typical Electrical and Thermal Characteristics Diagrams



Figure 1. Output Characteristics

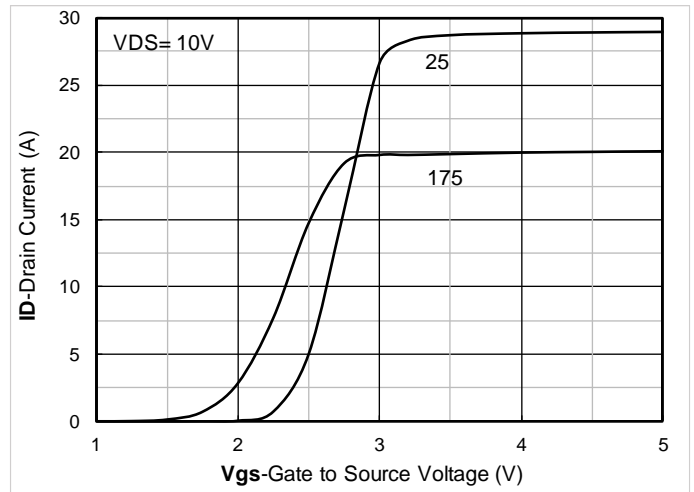


Figure 2. Transfer Characteristics

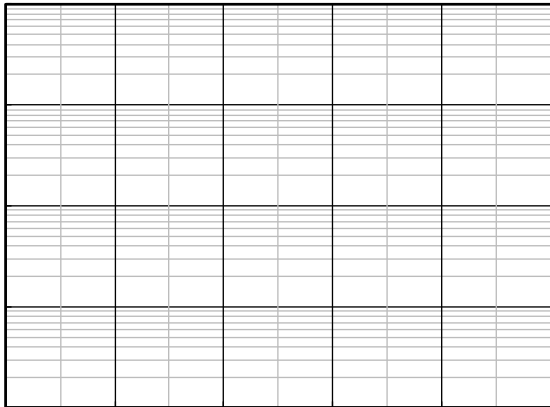


Figure 3. Capacitance Characteristics

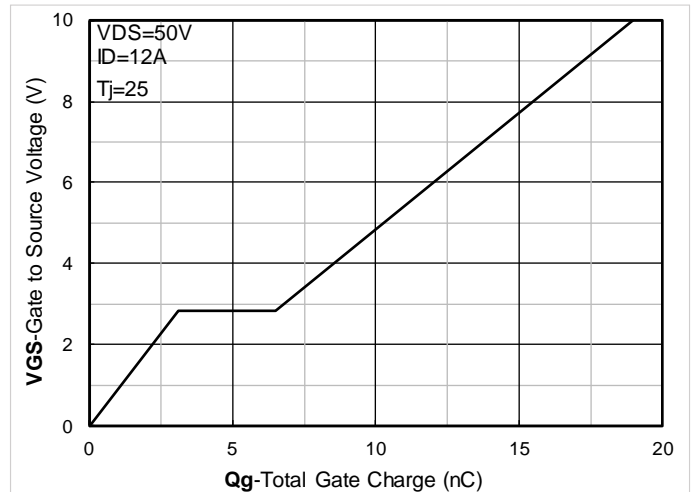


Figure 4. Gate Charge

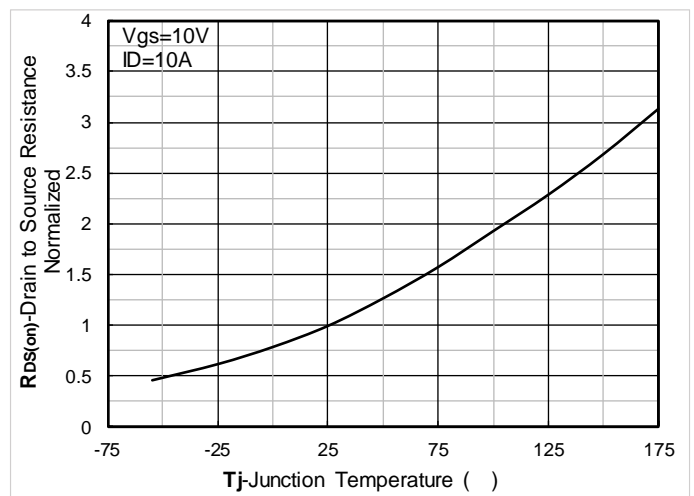


Figure 6. Normalized On-Resistance

Figure 5. On-Resistance vs Gate to Source Voltage



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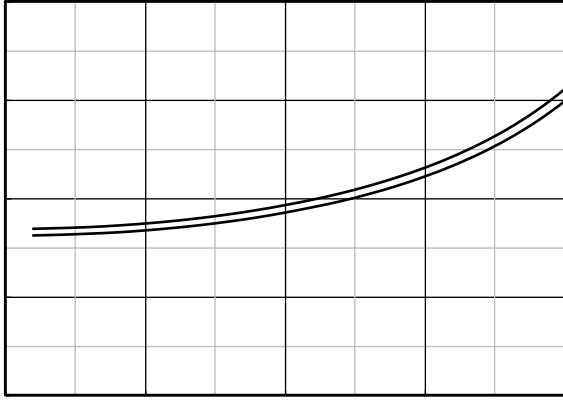


Figure 7.  $R_{DS(on)}$  VS Drain Current

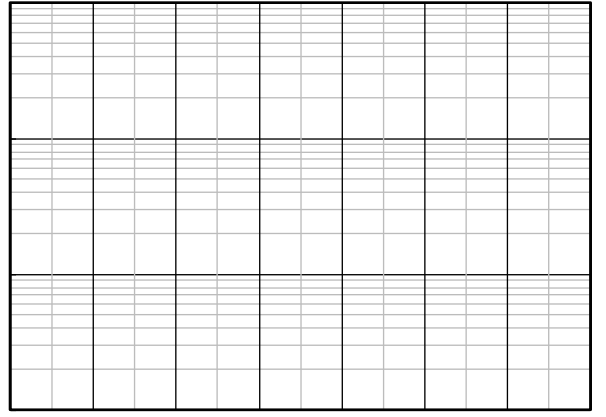


Figure 8. Forward characteristics of reverse diode

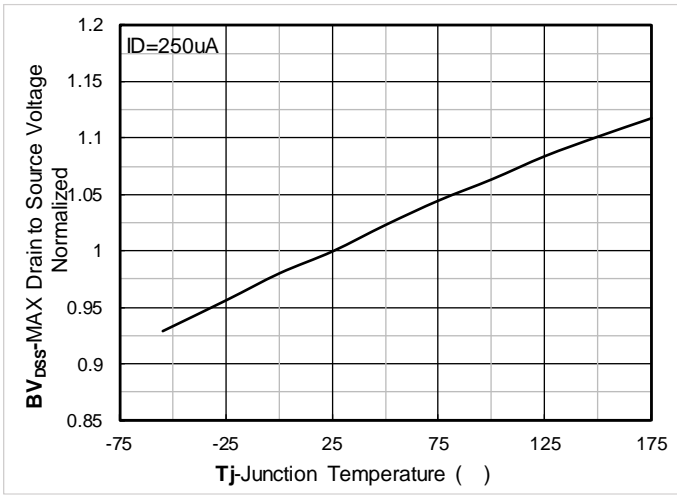


Figure 9. Normalized breakdown voltage

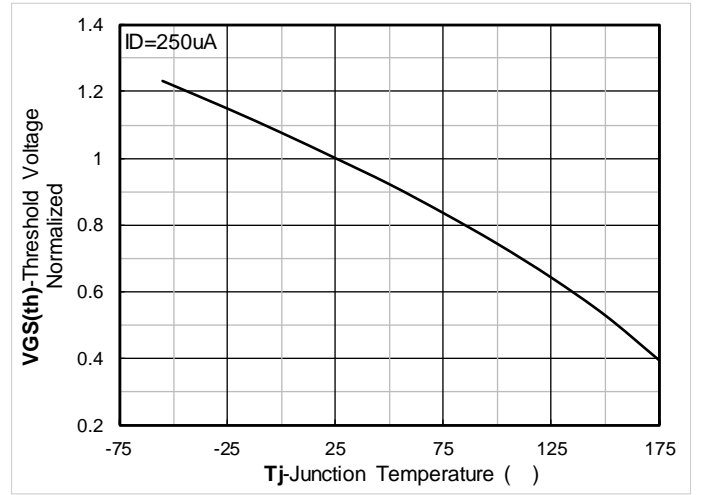


Figure 10. Normalized Threshold voltage

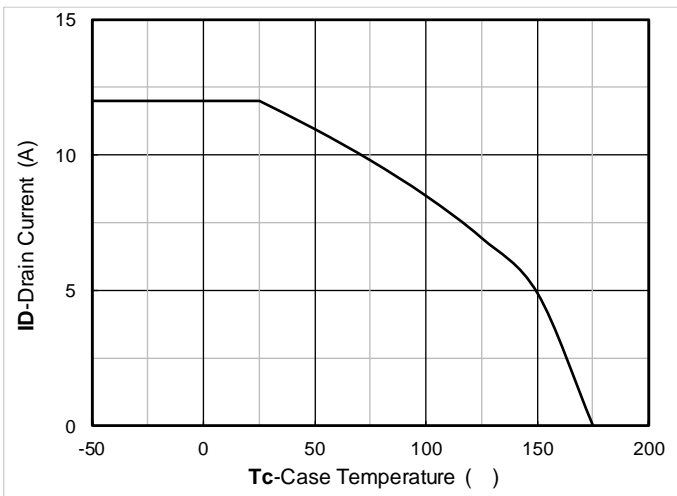


Figure 11. Current dissipation

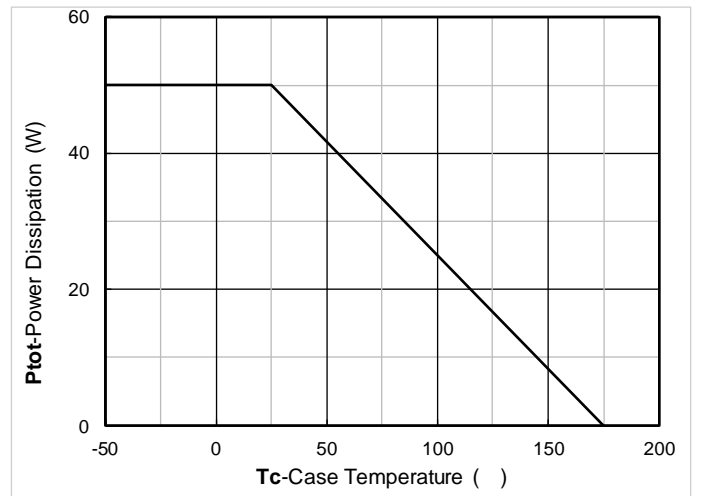


Figure 12. Power dissipation

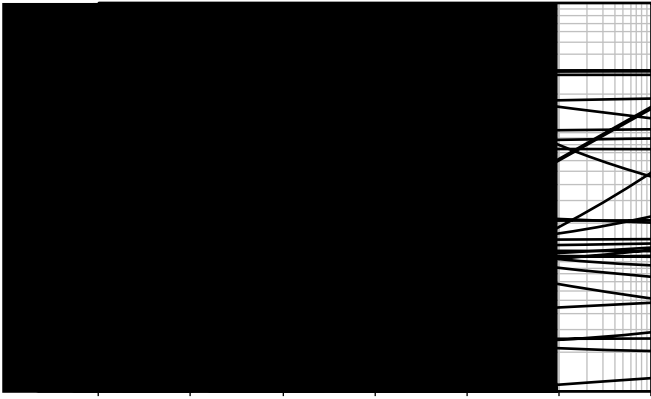


Figure 13. Maximum Transient Thermal Impedance

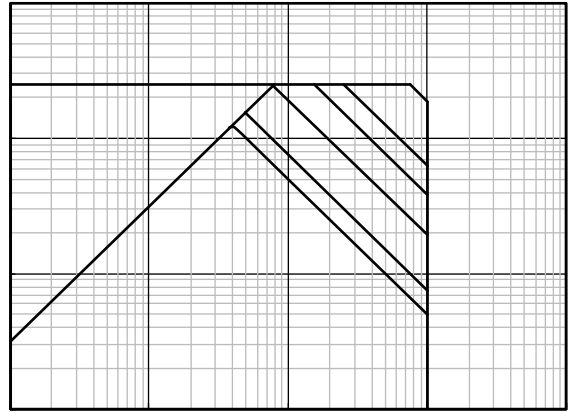


Figure 14. Safe Operation Area

## Test Circuits & Waveforms



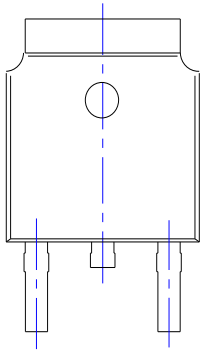
Figure A. Unclamped Inductive Switching (UIS) Test Circuit & Waveform





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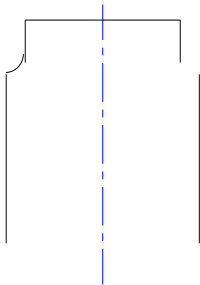
## TO-252-B Package information



TOP VIEW



SIDE VIEW



BOTTOM VIEW

SUGGESTED SOLDER PAD LAYOUT

SYMBOL	DIMENSIONS			
	INCHES			
	MIN.	NOM.		
A1	0.000			
A2	0.087	0.091		
A3	0.035	0.039		
b	0.026	0.030		
c	0.018	0.020		
D	0.256	0.260		
D1				
D2	0.181	0.189		
E	0.390	0.398		
E1	0.236	0.240		

**NOTE:**

- 1.PACKAGE BODY SIZES EXCLUDE MOLD FLASH AND GATE BURRS.
- 2.TOLERANCE 0.1mm UNLESS OTHERWISE SPECIFIED.
- 3.THE PAD LAYOUT IS FOR REFERENCE PURPOSES ONLY.



## YJD12N10B

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