



YJD130G04H

N-Channel Enhancement Mode Field Effect Transistor

Product Summary

V_{DS}	40V
I_D	130A
$R_{DS(ON)}$ (at $V_{GS}=10V$)	2.5m
100% EAS Tested	
100% V_{DS} Tested	

General Description

Split gate trench MOSFET technology
Excellent package for heat dissipation
High density cell design for low $R_{DS(ON)}$

-0 Flammability Rating

alogen Free

Applications

Power switching application
Uninterruptible power supply
DC-DC convertor

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

Parameter		Symbol	Limit	Unit
Drain-source Voltage		V_{DS}	40	V
Gate-source Voltage		V_{GS}	± 20	V
Drain Current	$T_A=25^\circ C$	I_D	29	A
	$T_A=100^\circ C$		21	
	$T_C=25^\circ C$		130	
	$T_C=100^\circ C$		92	
Pulsed Drain Current ^A		I_{DM}	390	A
Avalanche energy ^B		EAS	676	mJ
Total Power Dissipation ^C	$T_A=25^\circ C$	P_D	3.7	W
	$T_A=100^\circ C$		1.8	
	$T_C=25^\circ C$		125	
	$T_C=100^\circ C$		62	
Junction and Storage Temperature Range		T_J, T_{STG}	-55 +175	$^\circ C$

Thermal resistance

Parameter		Symbol	Typ	Max	Units
Thermal Resistance Junction-to-Ambient ^D	Steady-State	R	33	40	$^\circ C/W$
Thermal Resistance Junction-to-Case	Steady-State	R	1.0	1.2	

Ordering Information (Example)

0 g4 236 reWBT/F2



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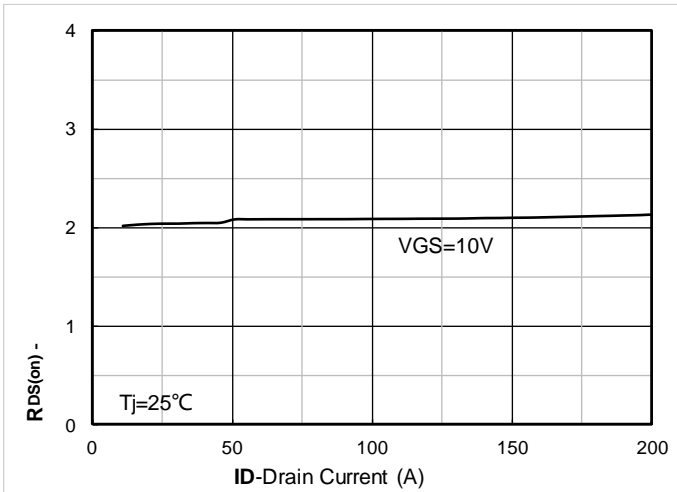


Figure7. RDS(on) VS Drain Current

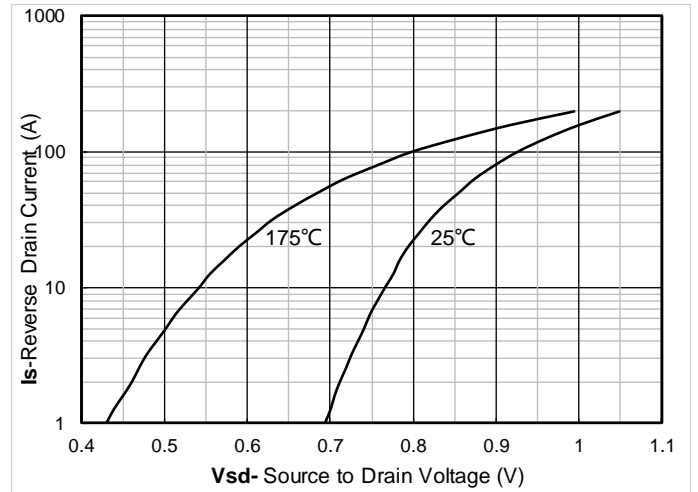


Figure8. Forward characteristics of reverse diode

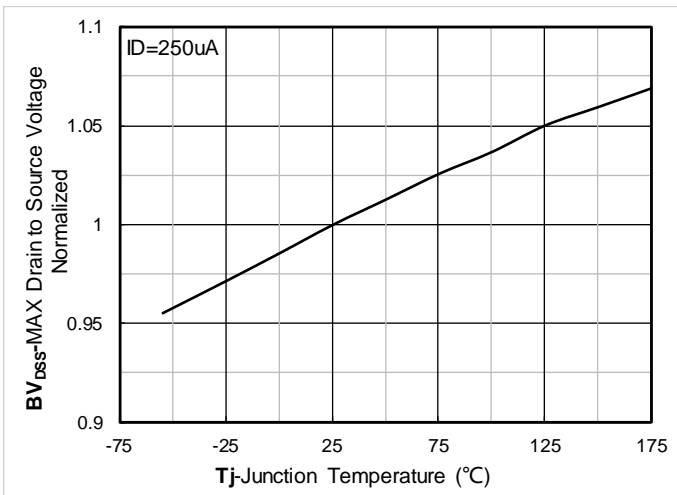


Figure9. Normalized breakdown voltage

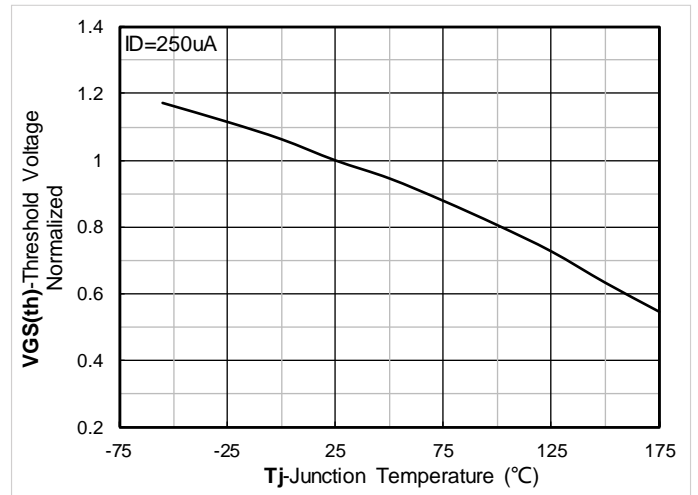


Figure10. Normalized Threshold voltage

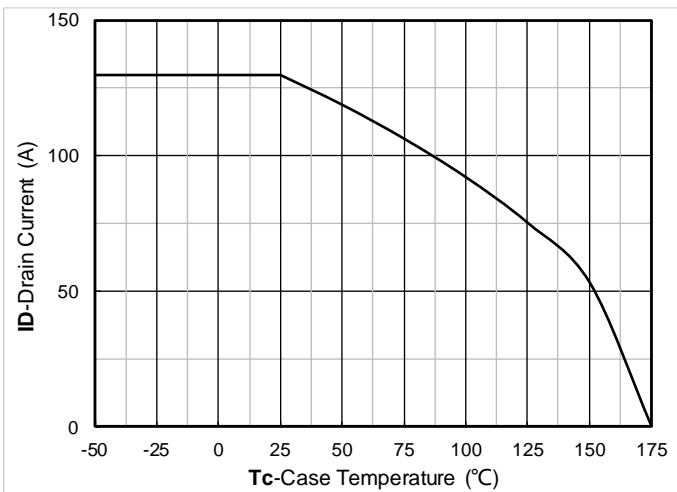


Figure11. Current dissipation

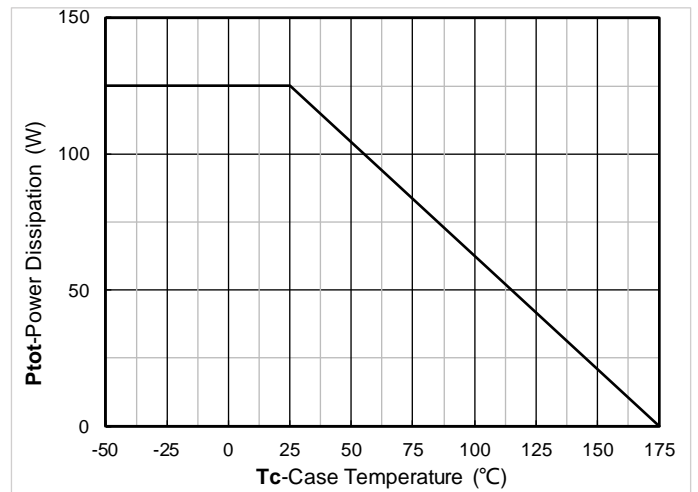


Figure12. Power dissipation

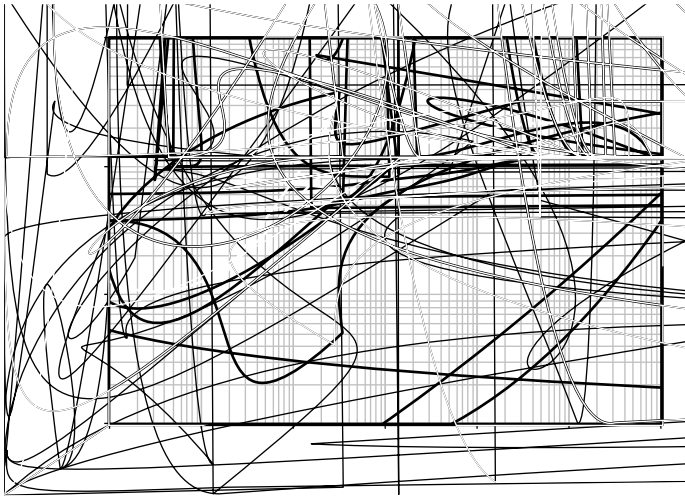


Figure13. Maximum Transient Thermal Impedance

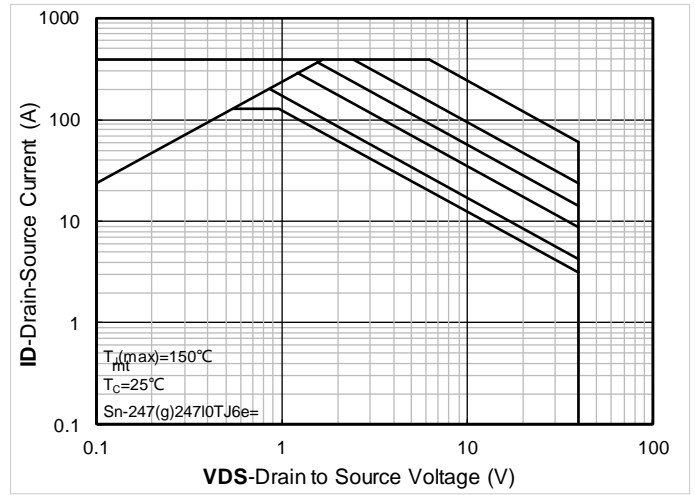


Figure14. Safe Operation Area



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