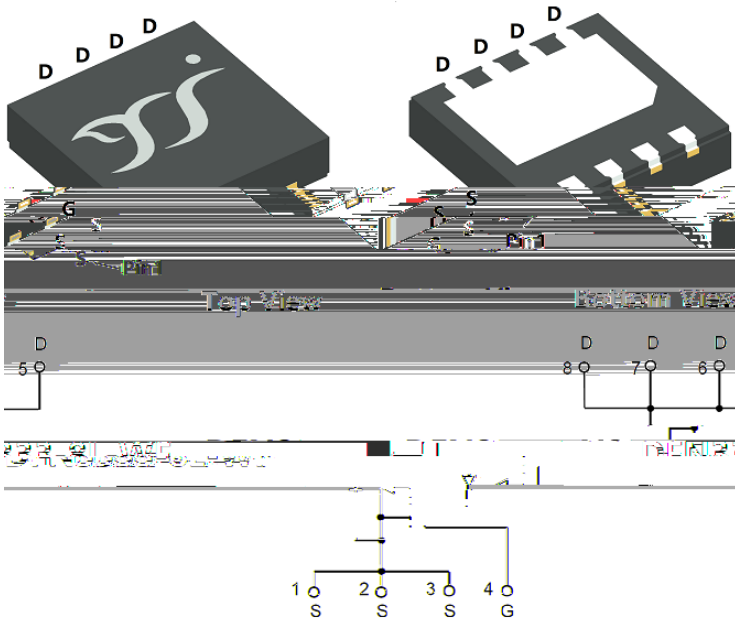




YJQ085P10A

P-Channel Enhancement Mode Field Effect Transistor



Product Summary

V_{DS}	-100V
I_D	-16A
$R_{DS(ON)}$ (at $V_{GS}=-10V$)	85m
$R_{DS(ON)}$ (at $V_{GS}=-4.5V$)	102m
100% EAS Tested	
100% V_{DS} Tested	

General Description

Trench Power MOSFET technology
 Excellent package for heat dissipation
 High density cell design for low $R_{DS(ON)}$
 Moisture Sensitivity Level 1
 Epoxy Meets UL 94 V-0 Flammability Rating
 Halogen Free

Applications

Load switch
 Motor drive control
 DC-DC convertor

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

Parameter			Symbol	Limit	Unit
Drain-source Voltage			V_{DS}	-100	V
Gate-source Voltage			V_{GS}	± 20	V
Continuous Drain Current (Note 1,2)	Steady-State	$T_A=25^\circ C, V_{GS}=-10V$	I_D	-3.3	A
		$T_A=100^\circ C, V_{GS}=-10V$		-2	
Continuous Drain Current (Note 1,3)	Steady-State	$T_C=25^\circ C, V_{GS}=-10V$		-16	
		$T_C=100^\circ C, V_{GS}=-10V$		-10	
Pulsed Drain Current	$T_C=25, t_p=100\mu s$		I_{DM}	-60	A
Avalanche energy	$V_G=-10V, R_G, L=1mH, I_{AS}=-12.6A$		EAS	79.38	mJ
Total Power Dissipation (Note 1,2)	Steady-State	$T_A=25^\circ C$	P_D	1.92	W
		$T_A=100^\circ C$		0.76	
Total Power Dissipation (Note 1,3)	Steady-State	$T_C=25^\circ C$		56	
		$T_C=100^\circ C$		22	
Junction and Storage Temperature Range			T_J, T_{STG}	-55 +150	$^\circ C$

Thermal resistance

Parameter		Symbol	Typ	Max	Units
Thermal Resistance Junction-to-Ambient (Note 2)	Steady-State	R	52	65	$^\circ C/W$
Thermal Resistance Junction-to-Case	Steady-State	R	1.8	2.2	

Ordering Information (Example)

PREFERRED P/N	PACKING CODE	Marking	MINIMUM PACKAGE(pcs)	INNER BOX QUANTITY(pcs)	OUTER CARTON QUANTITY(pcs)	DELIVERY MODE
YJQ085P10A	F1	Q085P10A	5000	10000	100000	13 reel



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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}	$V_{GS}=0V, I_D=-$	-100	-	-	V
Zero Gate Voltage Drain Current	I_{DSS}	$V_{DS}=-100V, V_{GS}=0V$	-	-	-1	
		$V_{DS}=-100V, V_{GS}=0V, T_J=150^\circ C$	-	-	-	



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Typical Electrical and Thermal Characteristics Diagrams

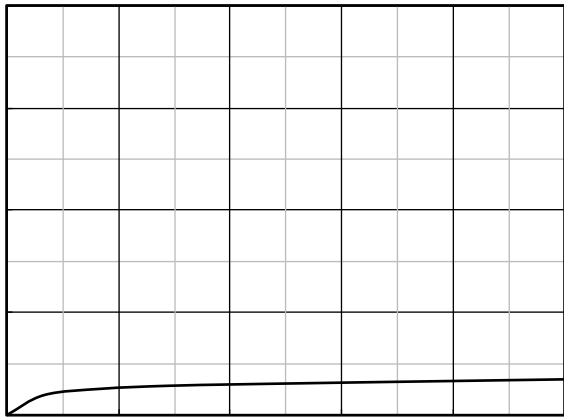


Figure 1. Output Characteristics

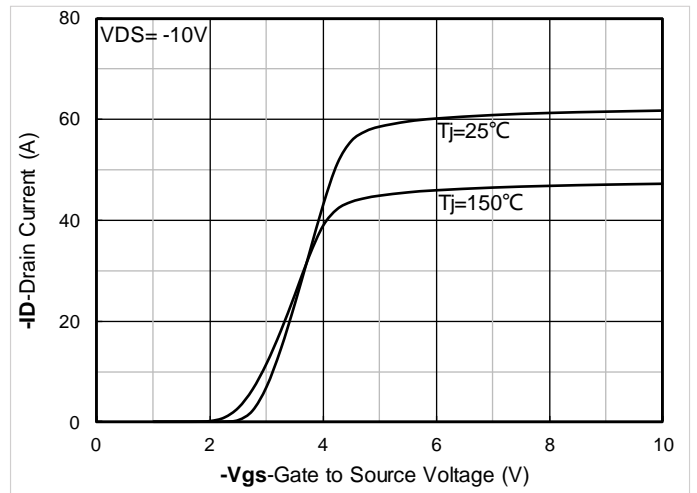


Figure 2. Transfer Characteristics

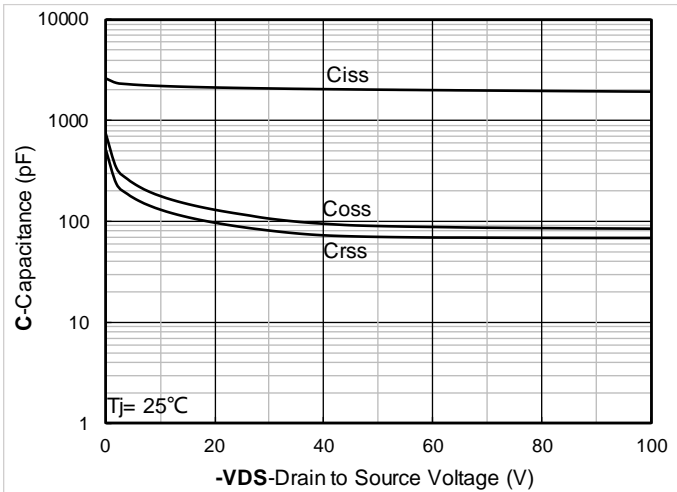


Figure 3. Capacitance Characteristics

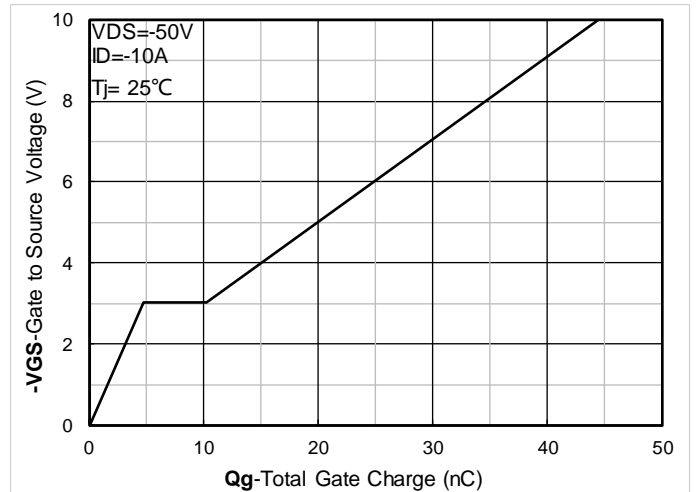


Figure 4. Gate Charge

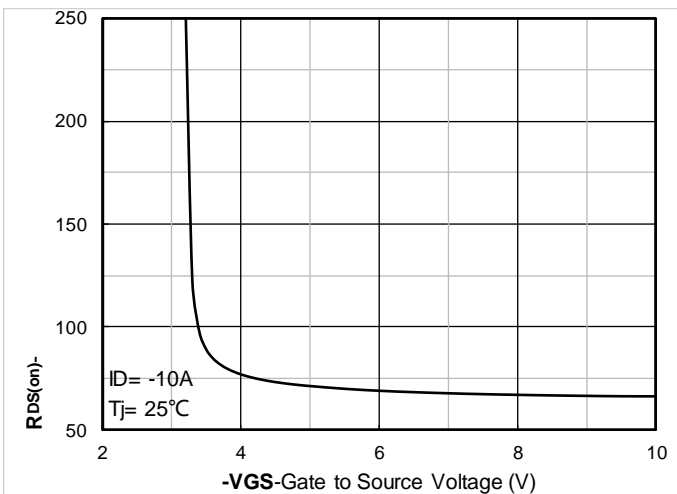


Figure 5. On-Resistance vs Gate to Source Voltage

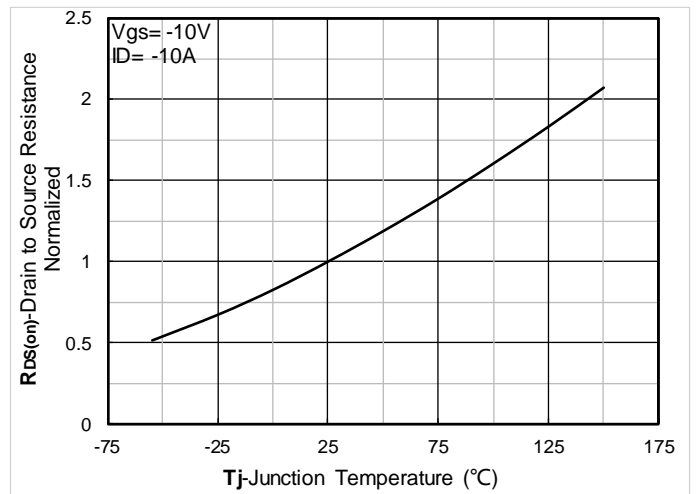


Figure 6. Normalized On-Resistance



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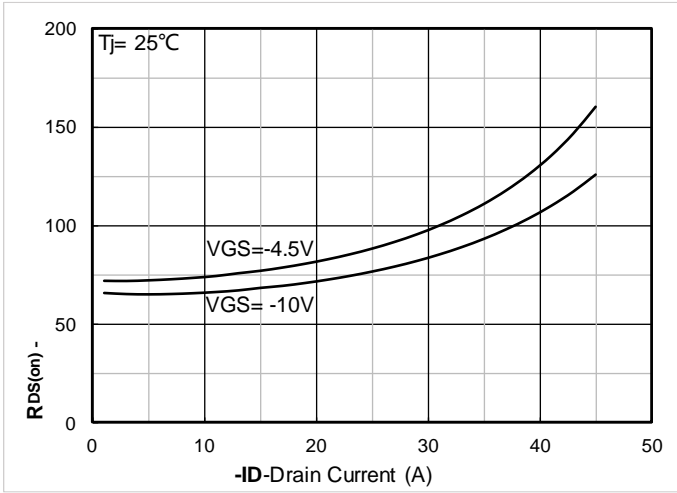


Figure 7. RDS(on) VS Drain Current

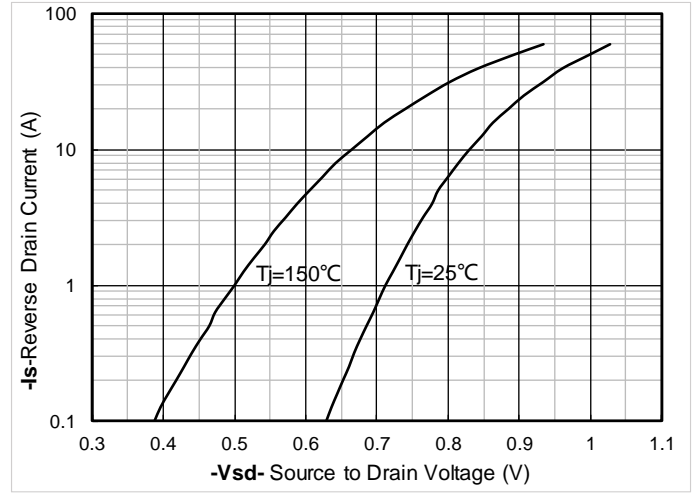


Figure 8. Forward characteristics of reverse diode

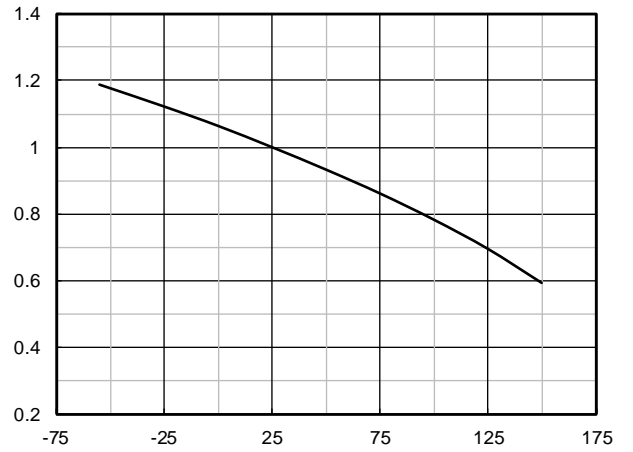


Figure 9. Normalized breakdown voltage

Figure 10. Normalized Threshold voltage

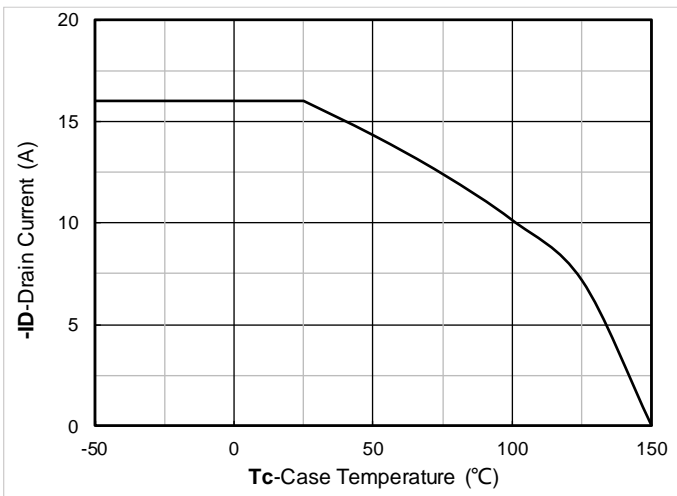


Figure 11. Current dissipation

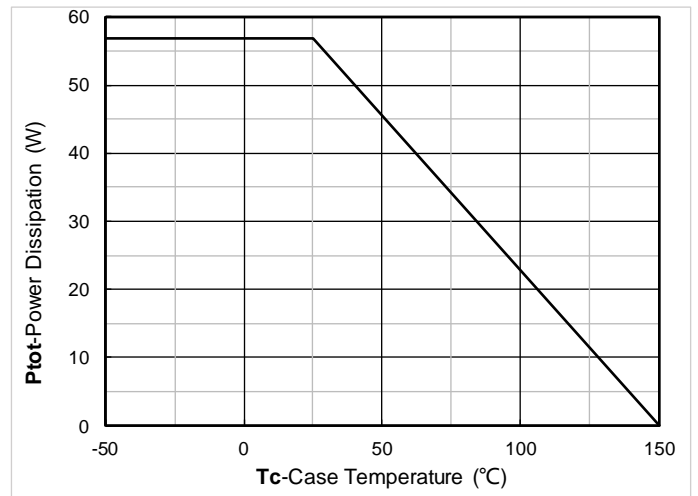


Figure 12. Power dissipation



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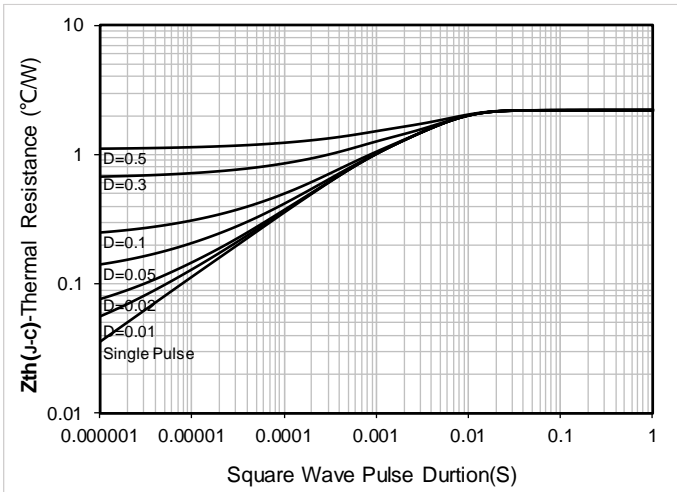


Figure 13. Maximum Transient Thermal Impedance

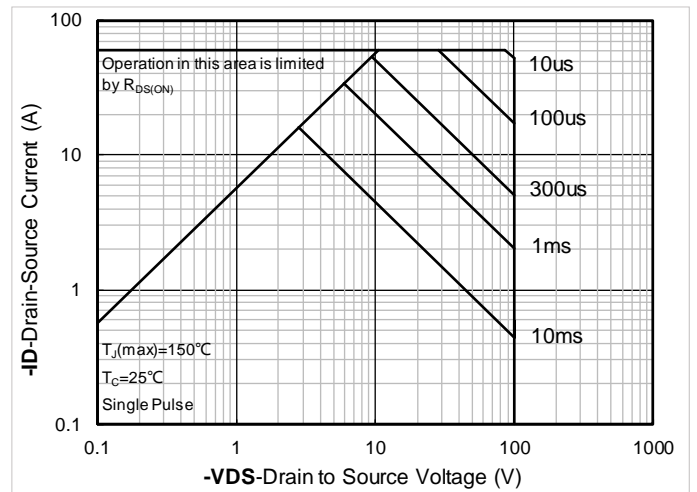
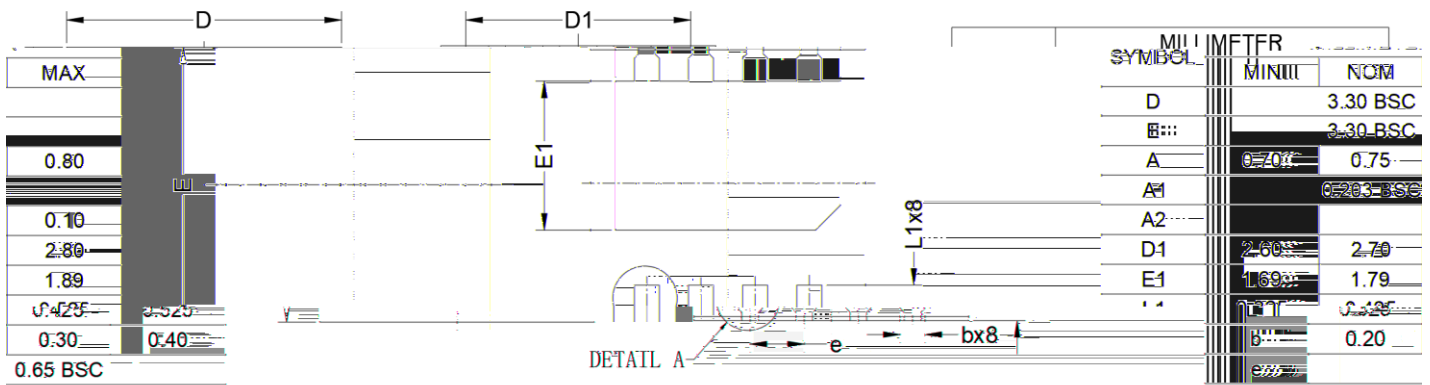


Figure 14. Safe Operation Area



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DFN3333-8L-WF Package information

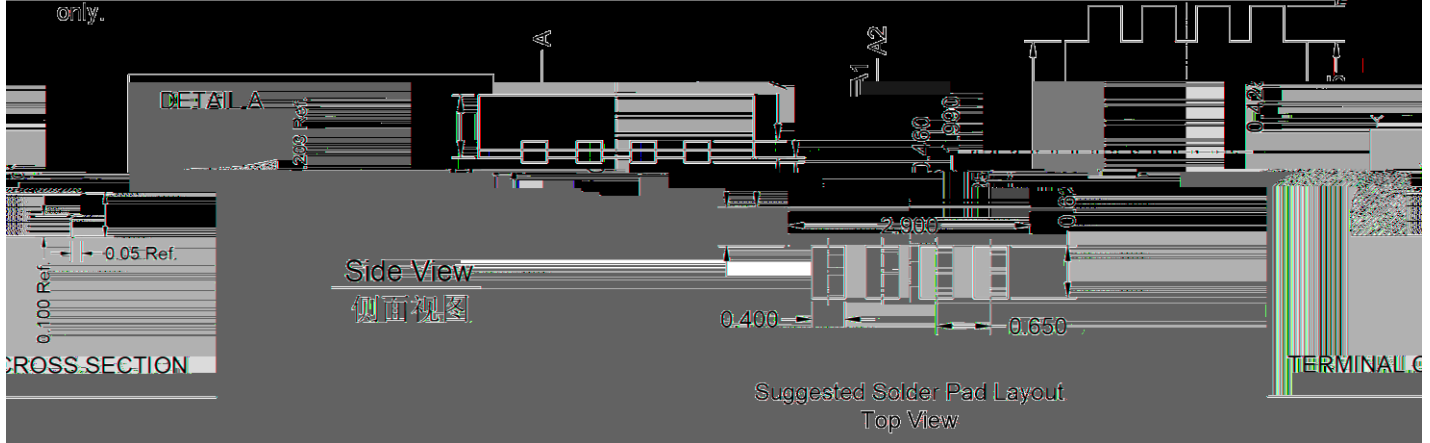


Top View
正面视图

Bottom View
背面视图

Dimension in millimeters.
Unless otherwise specified,
dimensions are for reference purposes

- Note:
1. Controlling dimension is in millimeters.
 2. General tolerance is ±0.10mm.
 3. The pad layout is for reference purposes only.





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