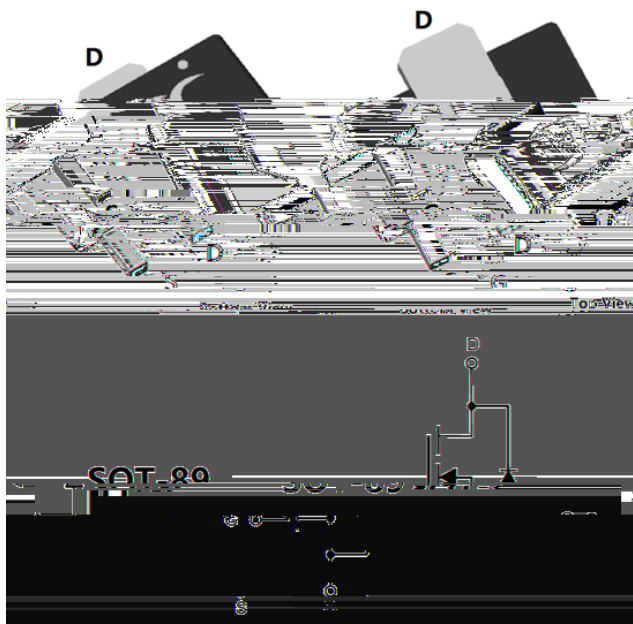




N-Channel Enhancement Mode Field Effect Transistor



Product Summary

V_{DS}	60V
I_D	5A
$R_{DS(ON)}$ (at $V_{GS}=10V$)	31m
$R_{DS(ON)}$ (at $V_{GS}=4.5V$)	38m

General Description

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

Applications

Power switching application
 Uninterruptible power supply
 DC-DC convertor

otherwise noted)

Parameter		Symbol	Limit	Unit
Drain-source Voltage		V_{DS}	60	V
Gate-source Voltage		V_{GS}	± 20	V
Drain Current	$T_A=25$	I_D	5	A
	$T_A=100$		3	
Pulsed Drain Current ^A		I_{DM}	40	A
Total Power Dissipation ^B	$T_A=25$	P_D	1.78	W
	$T_A=100$		0.71	
Junction and Storage Temperature Range		T_J, T_{STG}	-55 +150	

Thermal resistance

Parameter		Symbol	Typ	Max	Units
Thermal Resistance Junction-to-Ambient ^C	Steady-State	R	56	70	/W

Ordering Information (Example)

PREFERRED P/N	PACKING CODE	Marking	MINIMUM PACKAGE(pcs)	INNER BOX QUANTITY(pcs)	OUTER CARTON QUANTITY(pcs)	DELIVERY MODE
YJH05N06A	F2	6005A	1000	8000	32000	





Typical Electrical and Thermal Characteristics Diagrams

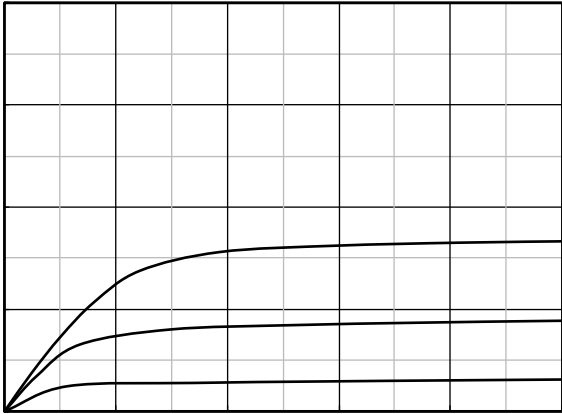


Figure 1. Output Characteristics

Figure 2. Transfer Characteristics

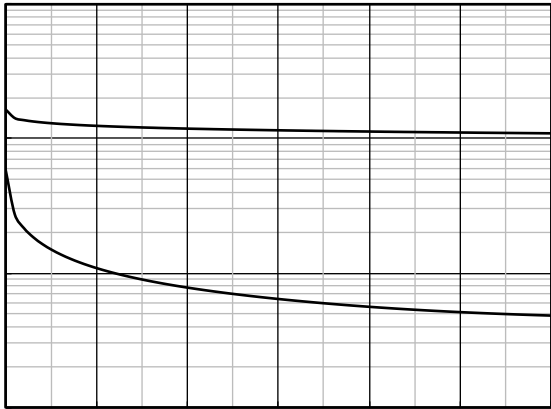


Figure 3. Capacitance Characteristics

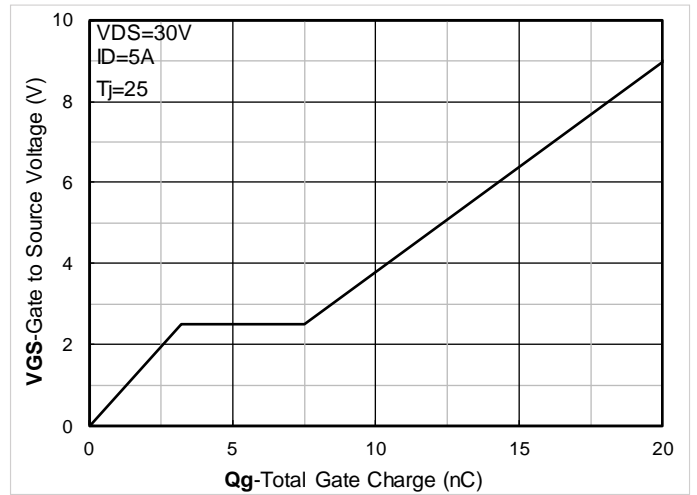


Figure 4. Gate Charge

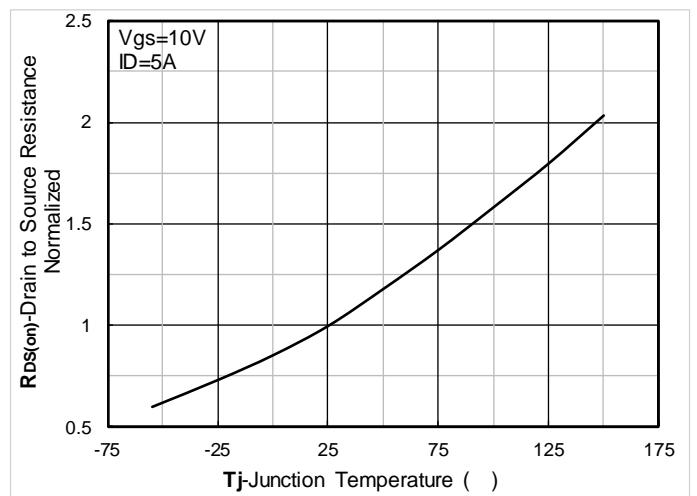


Figure 5. On-Resistance vs Gate to Source Voltage

Figure 6. Normalized On-Resistance

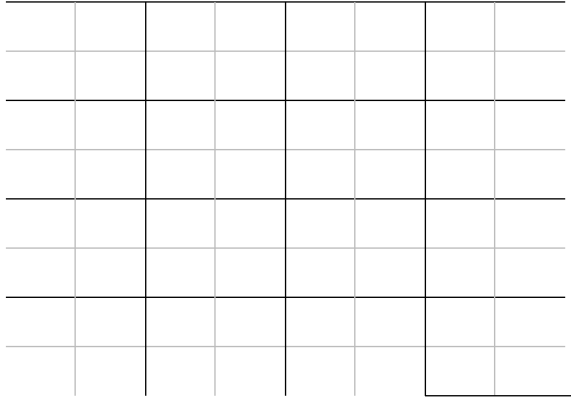


Figure 7. $R_{DS(on)}$ VS Drain Current

Figure 8. Forward characteristics of reverse diode



Figure 9. Normalized breakdown voltage

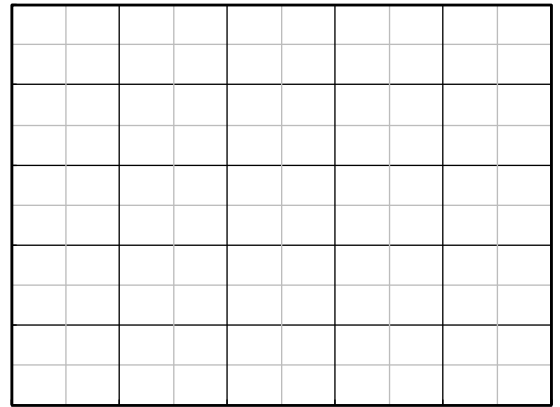


Figure 10. Normalized Threshold voltage

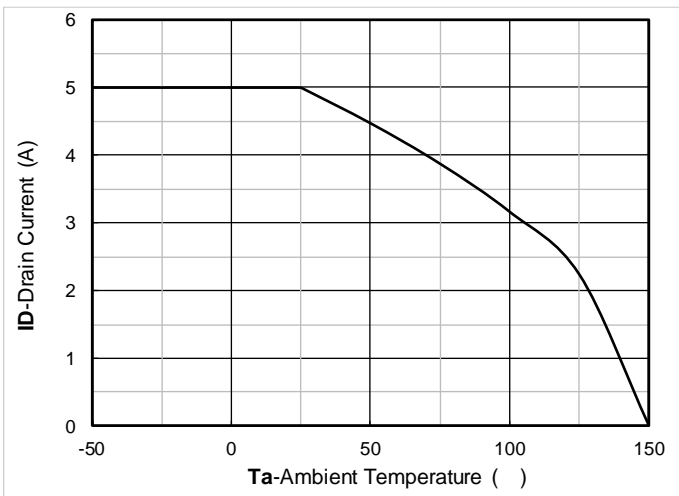


Figure 11. Current dissipation

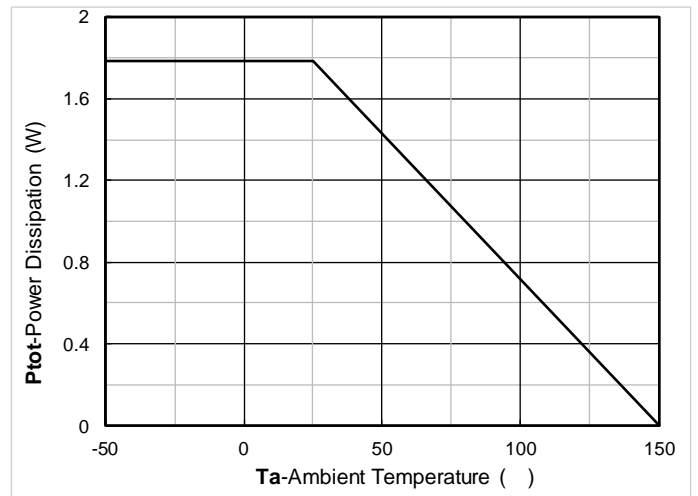


Figure 12. Power dissipation



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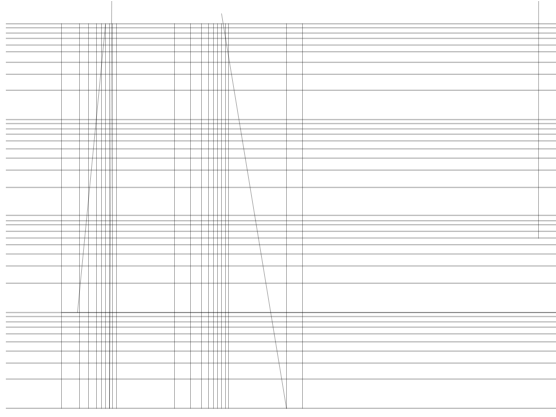


Figure 13. Maximum Transient Thermal Impedance

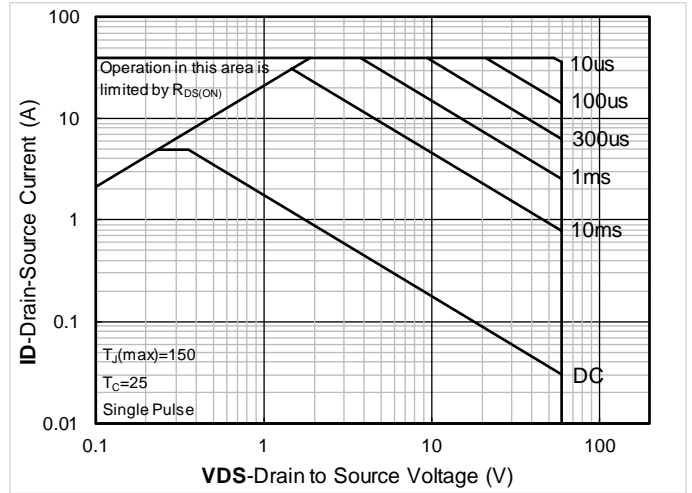
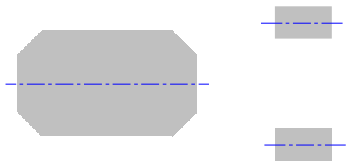
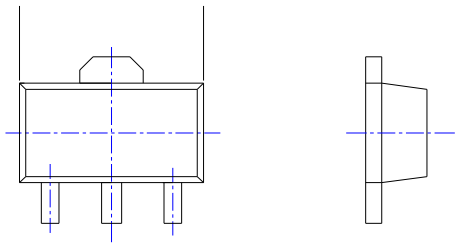


Figure 14. Safe Operation Area



SOT-89 Package information



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.

UNIT mm



YJH05N06A

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