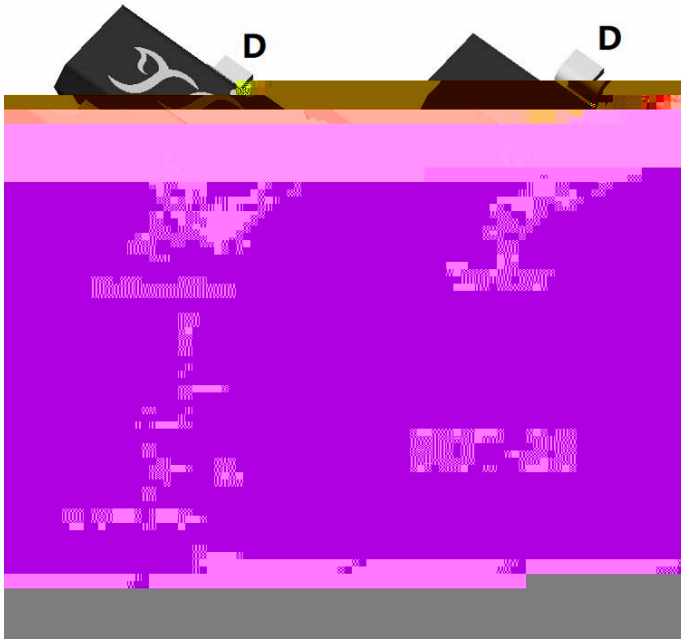




N-Channel Enhancement Mode Field Effect Transistor



Product Summary

V_{DS}	20V
I_D	6.8A
$R_{DS(ON)}$ (at $V_{GS}=4.5V$)	18mohm
$R_{DS(ON)}$ (at $V_{GS}=2.5V$)	22mohm
$R_{DS(ON)}$ (at $V_{GS}=1.8V$)	39mohm

General Description

Trench Power LV MOSFET technology
High Power and current handling capability
Part no. with suffix "Q" means AEC-Q101 qualified

Applications

PWM applications
Load switch

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

Parameter		Symbol	Limit	Unit
Drain-source Voltage		V_{DS}	20	V
Gate-source Voltage		V_{GS}	± 10	V
Drain Current	$T_A=25$	I_D	6.8	A
	$T_A=70$		5.4	
Pulsed Drain Current ^A		I_{DM}	27	A
Total Power Dissipation	$T_A=25$	P_D	1.25	W
	$T_A=70$		0.8	W
Thermal Resistance Junction-to-Ambient ^B		R_{JA}	100	/W
Junction and Storage Temperature Range		T_J, T_{STG}	-55 +150	

Ordering Information (Example)

PREFERRED P/N	PACKING CODE	Marking	MINIMUM PACKAGE(pcs)	INNER BOX QUANTITY(pcs)	OUTER CARTON QUANTITY(pcs)	DELIVERY MODE
YJL2312AQ	F2	S12	3000	30000	120000	7" reel



YJL2312AQ

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

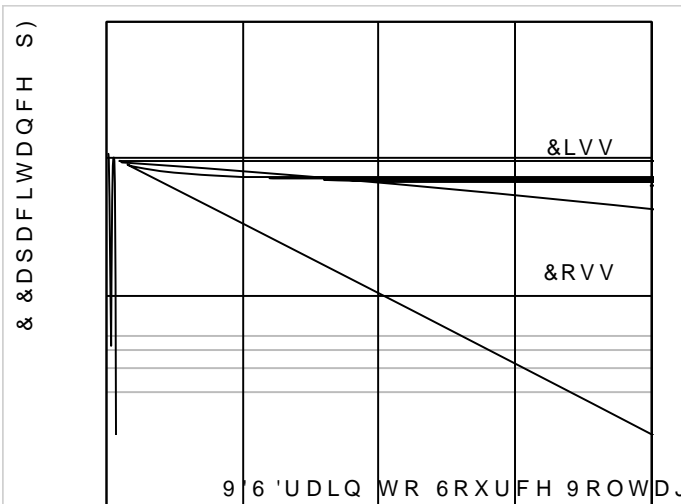
Parameter	Symbol	Conditions	Min	Typ	Max	Units
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v 7\SLFDO 3HUIRUPDQFH &KDUDFWHULVWLFV

H
&XJUH



)LJXUH 2XWSXW &KDUDFWHULVWLFV)LJXUH 7UDQV IHWL &KDUDFW W



)LJXUH &DSDFLWDQFH &KDUDFWHULVWLFV

)LJXUH 2Q 5HVLWHDQFH 6RXUFH 9ROWDJH)LJXUH 1RUPDOLJHG 2Q 5H

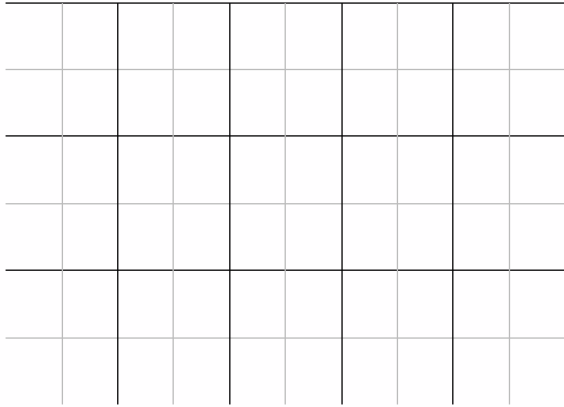


Figure 7. $R_{DS(on)}$ VS Drain Current

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



YJL2312AQ

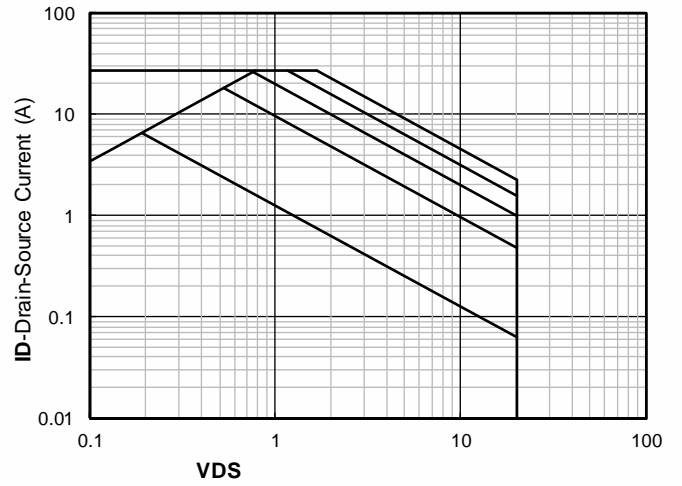


Figure 13. Maximum Transient Thermal Impedance

Figure 14. Safe Operation Area

