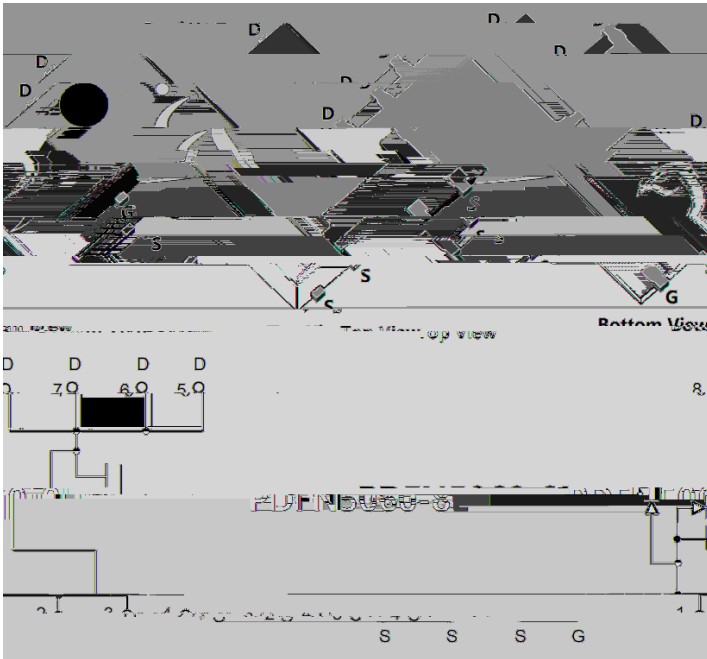




N-Channel Enhancement Mode Field Effect Transistor



Product Summary

- V_{DS} 40V
- I_D 125A
- $R_{DS(ON)}$ (at $V_{GS}=10V$) 3.1m Ω
- 100% EAS Tested
- 100% V_{DS} Tested

General Description

 $T_A=25$ unless otherwise noted)

Parameter	Symbol	Limit	Unit
Drain-source Voltage	V_{DS}	40	V
Gate-source Voltage	V_{GS}	± 20	V

 $T_A=25$

Drain Current

B		EAS	156	mJ
Total Power Dissipation ^c	$T_A=25$	P_D	2.7	W
	$T_A=100$		1.3	
	$T_C=25$		83	
	$T_C=100$		41	
Junction and Storage Temperature Range		T_J, T_{STG}	-55 +175	

■ Thermal resistance

Parameter	Symbol	Typ	Max	Units
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Thermal Resistance MINIMUM

			PAC K AGE(pcs)	INNER BOX QUANTITY(pcs)	OUTER CARTON QUANTITY(pcs)	DELIVERY MODE
YJG125G04HQ	F1	YJG125G04H	5000	10000	100000	13" reel



YJG125G04HQ

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

Parameter	Symbol	Conditions	Min	Typ	Max	Units
Static Parameter						
Drain-Source Breakdown Voltage	BV_{DSS}	$V_{GS}=0V, I_D=1mA$	40	-	-	V
		$V_{DS}=32V, V_{GS}=0V$	-	-	1	μA
		$V_{GS}=0V, V_{DS}=0V$	-	-	± 100	nA
Gate Threshold Voltage	$V_{GS(th)}$	$V_{DS}=V_{GS}, I_D=250\mu A$	2	3	4	V
Static Drain-Source On-Resistance	R	$V_{GS}=10V, I_D=20A$	-	2.4	3.1	m Ω
Diode Forward Voltage	V_{SD}	$I_S=20A, V_{GS}=0V$	-	0.8	1.2	V
Gate resistance	R_G					



■Typical Electrical and Thermal Characteristics Diagrams

Figure 1. Output Characteristics

Figure 2. Transfer Characteristics

Figure 3. Capacitance Characteristics

Figure 4. Gate Charge

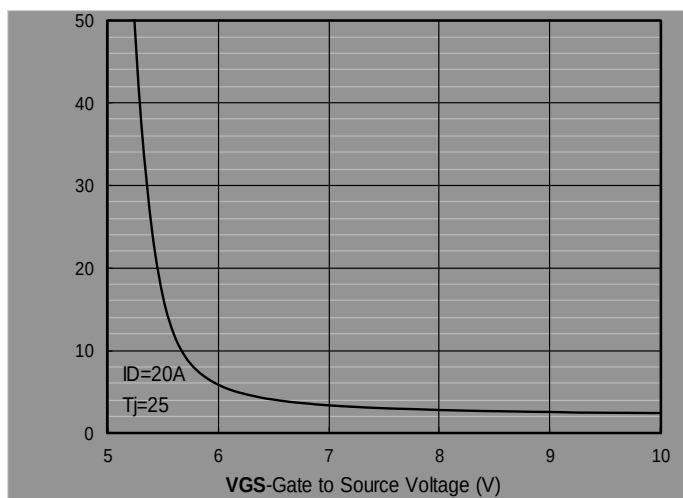




Figure 7. $R_{DS(on)}$ VS Drain Current

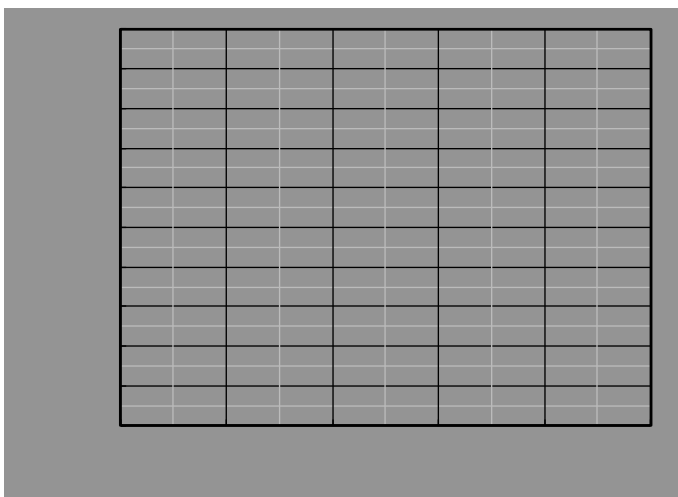
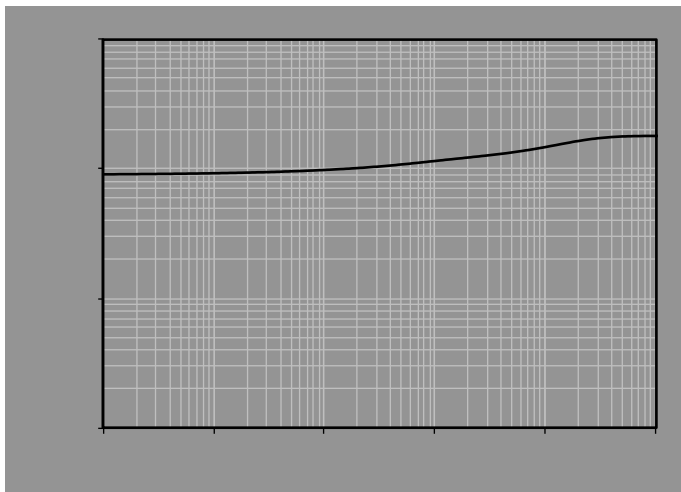


Figure 8. Forward characteristics of reverse diode





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