



N-Channel Enhancement Mode Field Effect Transistor

Product Summary

- V_{DS} 60V
- I_D 5.0A
- $R_{DS(ON)}$ (at $V_{GS}=10V$) 44 mΩ
- $R_{DS(ON)}$ (at $V_{GS}=4.5V$) 49 mΩ

General Description

- Trench Power MV MOSFET technology
- High density cell design for Low $R_{DS(ON)}$
- High Speed switching
- Moisture Sensitivity Level 3
- Epoxy Meets UL 94 V-0 Flammability Rating
- Halogen Free

Applications

- Battery protection
- Load switch
- Power management

■ Absolute Maximum Ratings ($T_A=25^\circ\text{C}$ unless otherwise noted)

Parameter		Symbol	Maximum	Unit
Drain-source Voltage		V_{DS}	60	V
Gate-source Voltage		V_{GS}	± 20	V
Drain Current	$T_A=25^\circ\text{C}$ @ Steady State	I_D	5.0	A
	$T_A=70^\circ\text{C}$ @ Steady State		4.0	
Pulsed Drain Current ^A		I_{DM}	25	A
Total Power Dissipation @ $T_A=25^\circ\text{C}$		P_D	2.5	W
Thermal Resistance Junction-to-Ambient @ Steady State ^B		$R_{\theta JA}$	50	/W
Junction and Storage Temperature Range		T_J, T_{STG}	-55 +150	

PREFERRED P/N	PACKING CODE	Marking	MINIMUM PACKAGE(pcs)	INNER BOX QUANTITY(pcs)	OUTER CARTON QUANTITY(pcs)	DELIVERY MODE
YJM05N06A	F2	6005	2500	/	40000	13" reel
			2500	5000	25000	13" reel

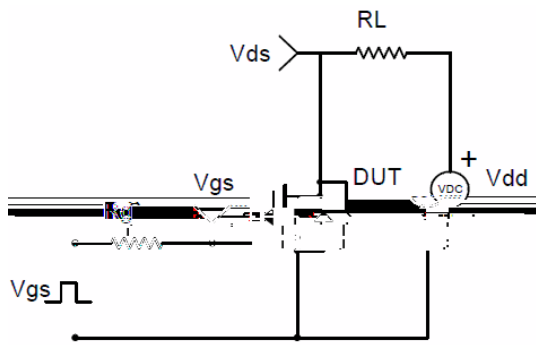


■ Typical Performance Characteristics

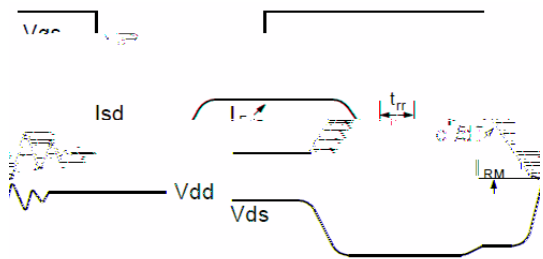
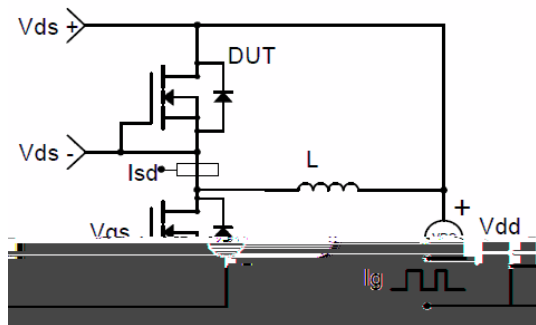
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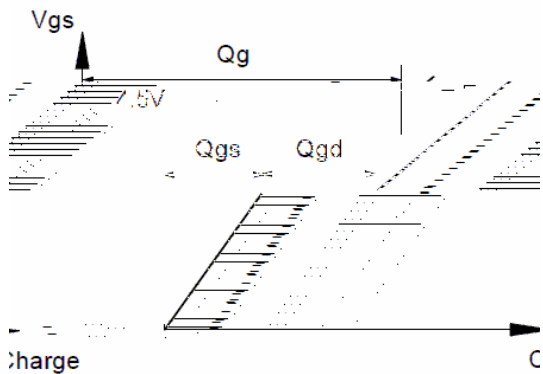
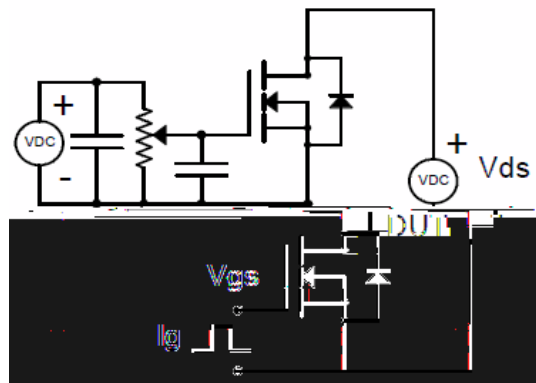
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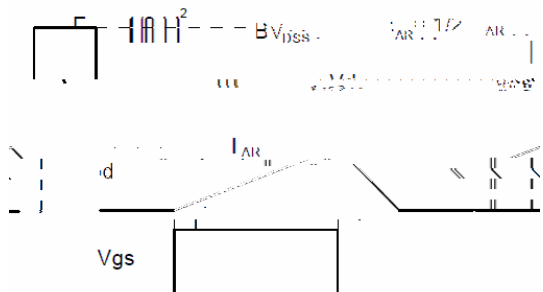
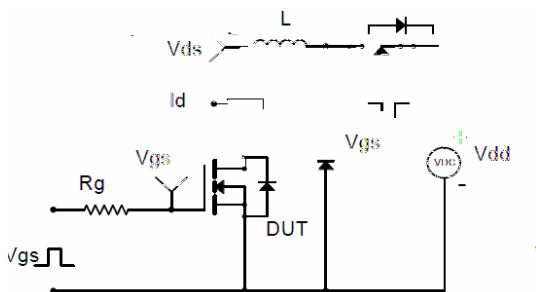
Resistive Switching Test Circuit & Waveforms



Diode Recovery Test Circuit & Waveforms



Gate Charge Test Circuit & Waveform



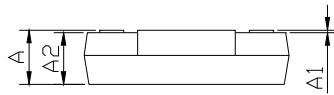
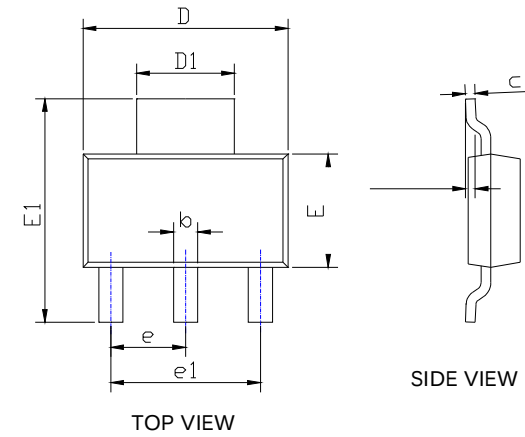
Unclamped Inductive Switching (UIS) Test Circuit & Waveforms



YJM05N06A

■SOT-223 Package information

TYPE B:



SIDE VIEW

SYMBOL	DIMENSIONS			
	INCHES		Millimeter	
	MIN.	MAX.	MIN.	MAX.
A	0.060	0.071	1.520	1.800
A1	0.000	0.004	0.000	0.100
A2	0.059	0.067	1.500	1.700
b	0.026	0.032	0.660	0.820
c	0.010	0.014	0.250	0.350
D	0.244	0.252	6.200	6.400
D1	0.114	0.122	2.900	3.100
E	0.130	0.146	3.300	3.700
E1	0.269	0.278	6.830	7.070
e	0.091BSC		2.300BSC	
e1	0.177	0.185	4.500	4.700
L	0.035	0.045	0.900	1.150
	0°	10°	0°	10°

